



YOUR PLAN OUR FUTURE
TIMARU DISTRICT PLAN REVIEW

Earthworks and Mining S.32

May 2022



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LAND USE PLAN

Timaru District Council

Section 32 Report Earthworks Chapter and Mining and Quarrying as part of the General Rural Zone Chapter

May 2022

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1 Earthworks and Mining and Quarrying

1.1 Introduction

This topic covers earthworks, mining and quarrying and considers options for how these activities should be managed. The topic considers the potential adverse effects arising from such activity including potential effects on visual and amenity values, ecological values, cultural values, natural hazard risks and the potential disturbance of contaminated soil as well as recognising the benefits that these activities can have in contributing to economy well-being and facilitating development.

1.2 Community / Stakeholder / Iwi Engagement

Discussion Document (November 2016)

In November 2016, Timaru District Council released Discussion Documents on a range of topics important to the District and important in underpinning a District Plan review. The issues associated with earthworks, mining and quarrying identified in the Discussion document¹ were:

- Should mining and quarrying be controlled in the District Plan?

The Discussion Document noted that:

Mining and quarrying make valuable resources available, but their extraction can give rise to significant dust, traffic, noise, and visual effects. The District Plan provides for limited extraction as a permitted activity and all other extraction requires consent as a discretionary activity. The Regional Council also controls extraction in relation to dust and controls extraction of gravel from riverbeds. There are queries then as to whether there is sufficient control over the effects of mining and quarrying (including mining of a resource not yet identified) and whether there is unnecessary duplication of control.

The options for addressing this issue are to (i) retain the current zone rules that permit small scale mining or quarrying within any given year in the rural area and require consent for greater volumes or within other areas of the District; (ii) provide for mining and quarrying that either meets similar standards to the regional plan or for which there is a regional resource consent; or (iii) provide for mining and quarrying activities with a higher permitted volume but include minimum standards setting limits for truck movements per day, noise generation, hours of operations, noise, dust and setbacks from sensitive activities and setback of activities that are sensitive to mining and quarrying. Standards requiring financial contributions for damage to roading could also be introduced.

- Should earthworks (excluding quarrying) be controlled within all parts of the district?

The Discussion Document noted that:

The District Plan controls on earthworks are limited to controls through subdivision consents or when land is being filled to a depth of one metre or more. There are potential adverse impacts on the environment from uncontrolled earthworks such as dust, heavy traffic movements, vibration, noise, erosion, and diversion of natural drainage channels.

¹ <https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/discussion-documents>

The options for addressing this issue are to (i) retain the current District Plan rules and standards for earthworks; (ii) retain the Rural Zone earthworks controls but introduce controls for other parts of the District such as in the Residential Zones; or (iii) introduce rules to control earthworks within all zones that set permitted thresholds for volume, depth of cut and depth of fill, slope, setbacks from sensitive activities, including requirements for dust control and erosion and sediment control plans. An option could be to exempt activities where they are permitted by a regional plan or have obtained regional council consent.

Summary of Community Feedback from Discussion Document (April 2018)

Should mining and quarrying be controlled in the District Plan?

- Some respondents thought the current rules were sufficient, while others want to ensure that mining and quarrying has further strict conditions to protect biodiversity.
- Transpower sought standards to address the direct effects and reverse sensitivity effects of mining and quarrying in the vicinity of the National Grid.

Environmental Services Committee Initial Direction:

The current zone rules permitting small scale mining and quarrying are adequate and are to be retained in the District Plan. Currently consented mines and quarries will be mapped in the District Plan, with provisions included to enable their operation as a permitted activity. Threshold performance standards will apply to these permitted activities.

Should earthworks (excluding mining and quarrying) be controlled within all parts of the district?

- There was support for, and opposition to, extending earthworks control throughout the district rather than maintaining the current limited controls in relation to subdivision and some earthworks in the Rural Zone.
- The potential for overlap with the Regional Council controls, particularly in relation to dust nuisance, was noted.
- The negative visual impact of some tracks on hillsides was considered justification for greater control and no such tracks should be permitted in outstanding natural landscapes.
- One respondent considered “ancillary earthworks” should be included in the definition of farming to enable irrigation ponds and the like.
- Transpower sought provisions that address earthworks due to their potential to compromise the National Grid.
- Infrastructure respondents sought exception from any earthworks provisions for upgrading and maintenance of rail, and installation of access tracks to rural telecommunication facility sites.

Environmental Services Committee Initial Direction:

There is currently little control over earthworks within all zones, including for large on-site storage ponds and on steeper slopes. Provisions with permitted thresholds will be introduced to control earthworks within all zones.

Refined Issues

The topic brief refined the earthworks (excluding mining and quarrying) issues further being the:

- Need for control of earthworks associated with residential zone development occurring on small allotments, steeper slopes and potentially affecting drainage of surface water with impacts on adjacent property.

- Need to control maximum height of fill that raises ground level when it can adversely affect amenity.
- Need for a rationale for earthworks thresholds (volume/area/height/slope) as rule matters and/or performance standards.
- Need to discourage earthworks in sensitive areas such as in Significant Natural Areas, adjacent waterbodies and in proximity to heritage buildings and sites of Significance to Māori.
- Need to protect infrastructure from earthworks occurring in near proximity.
- Need to enable flood protection works when undertaken by local authorities, even though they include earthworks occurring adjacent waterbodies, which are sensitive environments.

Draft District Plan consultation

In 2020, Timaru District council released a Draft District Plan for community feedback. The feedback on Earthworks can be summarised as follows:

- Concerns that the volume of earthworks permitted in the Rural Zone and the need for reinstatement of land is too onerous. Earthworks in the rural zone do not pose the same risk as it would in other zones due to the volumes, nature, purpose and risks to buildings, people and other properties.
- Recontouring is normally undertaken for a permanent purpose, so the requirement for reinstatement of land, is not appropriate.
- The Plan should exclude distribution lines from EW-S52, as the NPSET does not apply to distribution lines.
- A number of the earthworks permitted activity conditions are impractical and unnecessary for business as usual farming activities, including the requirement to keep track of the area of earthworks over any 12-month period and requirements for rehabilitation.
- Kāinga Ora seek more permissive controls in relation to excavations in proximity to boundaries.
- There is support from a group of oil companies for the intent of the Plan, to not duplicate standard contained within the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011, but the earthworks provisions must not unduly restrict activities that disturb contaminated soils, including the removal and replacement of underground tanks, where existing levels are retained (i.e. there is no increased risk).
- General support for EW-O1 and many of the policies, relating to managing risks, avoiding reverse sensitivity particularly for nationally and regionally significant infrastructure.
- EW-R1 is supported as the earthworks and associated standards are appropriate to service the ongoing rural and pastoral activities in the General Rural Zone.
- The placement of gravel on existing farm tracks is standard maintenance which has many benefits including reducing dust, reducing potential for erosion and reduces risks of accidents. There should be an exemption for this under the rules.
- Support exemption in the rules for bores covered by regional rules, but rules should allow for biosecurity related earthworks as a permitted activity.
- There is a need for a clear definition of a heritage setting, and clarity over what matters are to be controlled and why.
- The only 250m² allowance for earthworks on a site within a 12 month period, will capture a large portion of earthworks required for a new dwelling. The allowance should be higher for a primary dwelling and then perhaps tighter thereafter.

- There is duplication with the Canterbury Land and Water Regional Plan, in relation to dust, sediment and erosion within EW-S1.
- The exemption under EW-S5 for earthworks undertaken as part of agricultural cultivation and repair and resealing of farm tracks, is supported.
- There is duplication under EW-S5 and this should be deleted and replaced with a cross reference to EI-R31 relating to works in the National Grid Yard.
- There are concerns regarding the depth of earthworks, which must not exceed 1.5m below or above ground level. This depth is not suitable on all site, particularly intensive horticultural sites where soil conditions require greater depths to improve drainage. The depth and height limit should be increased to 4m.
- Support for the advice note relating to discovery of an unidentified archaeological site.

The feedback on mining and quarrying within the General Rural Zone is summarised as following:

- Opposition to GRUZ-13 which should not apply to VALs and the non-complying activity status is not appropriate, it should be more lenient in line with other rural rules.
- Quarrying and gravel extraction are appropriate and legitimate land uses within the Rural Zone, and the benefits should be recognised in the District Plan. Fluvial gravel extraction often delivers multiple benefits including aggregate supply, braided river enhancement and flood mitigation.
- Amend the General Rural Zone objectives, policies and rules to provide for any farm quarry up to 2,000m² as a Permitted Activity.
- Objective GRUZ-O5 reads more like a policy than an objective. By its nature mining and quarrying should only occur within the rural zone and accordingly greater flexibility should be provided for it. Additionally, if the focus is on 'effects', there should be no differentiation between farm quarries and quarries, but more small scale quarries should be provided for.
- Retain GRUZ-P6 as it gives effect to the Canterbury Regional Policy Statement by protecting sensitive areas and landscapes from effects of quarrying and mining.
- There is reference to m2 in a variety of rules, including GRUZ-R13. This should be changed to m3.
- Retain rule GRUZ -R13 as it does not duplicate the Land and Water Regional Plan, as it addressed visual effects on terrestrial biodiversity, which are not specifically managed by the LWRP.
- The 20 metre setback required by GRUZ-R13 is not practical as farm quarrying is usually undertaken in non-effective areas such as corners of paddocks.
- GRUZ-R13 replicates the Canterbury Regional Plan. The LWRP has rules which address earthworks and vegetation clearance in riparian areas, vegetation in lake and river beds, and gravel takes from river beds. Duplication should be deleted.
- There is a request that, rather than arbitrary setback distances under GRUZ-R16 and R20, that such setbacks should be determined on a case by case basis.
- Under GRUZ-R16, the RDIS-2 rule should be expanded to include the Drinking Water Protection Overlay.
- The Plan could be streamlined by including the Accidental Discovery Protocol as a stand-alone Permitted Activity Rule.

The feedback has been considered in the drafting of the Proposed District Plan.

1.3 Strategic directions

Earthworks are associated with land use and development activities that occur throughout the Timaru district and contribute to its social and economic wellbeing. The potential adverse effects associated with earthworks include effects on visual and amenity values, ecological values, cultural values, natural hazard risks; and, the potential disturbance of contaminated soil. Mining and quarrying, which are activities that have a functional need to locate where the resource is, have the same potential adverse effects as earthworks, as well as the longer term effects associated with traffic movements, dust and noise.

Given the above context, the Plan's strategic directions relevant to earthworks, mining and quarrying are:

SD-O2 The Natural and Historic Environment

The District's natural and historic environment is managed so that:

- i. the health and wellbeing of the community are recognised as being linked to the natural environment;
- ii. an integrated management approach is adopted that recognises that all parts of the environment are interdependent;
- iii. the natural character of the coastal environment, wetlands and waterbodies is preserved and protected from inappropriate subdivision, use, and development;
- iv. important landscapes and features are protected from inappropriate subdivision, use, and development;
- v. significant indigenous vegetation and significant habitats of indigenous fauna are identified and their values recognised, protected and where appropriate, enhanced;
- vi. the life-supporting capacity of ecosystems and resources is safeguarded for future generations;
- vii. the important contribution of historic heritage to the District's character and identity is recognised, and significant heritage and its values are protected from inappropriate subdivision, use, and development.

SD-O3 Climate Change

The effects of climate change are recognised and an integrated management approach is adopted, including through:

- i. taking climate change into account in natural hazards management;
- ii. enabling the community to adapt to climate change;
- iii. encouraging efficiency in urban form and settlement patterns.

SD-O4 Natural Hazards

Natural hazards risks are addressed so that:

- i. areas subject to natural hazards and risk are identified;
- ii. development is avoided in areas where the risks of natural hazards to people, property and infrastructure are assessed as being unacceptable; and
- iii. for other areas, natural hazards risks are appropriately mitigated.

SD-O5 Mana Whenua

The mana whenua status of Kāti Huirapa is recognised and their historic and contemporary relationship with the District's land, water bodies and wetlands, coastal environment, and indigenous species is recognised and provided for by ensuring:

- i. mahika kai resources and habitats of indigenous species are sustained and opportunities for their enhancement or restoration are encouraged;

- ii. the health of water body and wetland environments is protected from adverse effects of land use and development;
- iii. the values of identified sites and areas of significance to Kāti Huirapa are recognised and protected;
- iv. Kāti Huirapa retains, and where appropriate is able to enhance access to their sites and areas of significance;
- v. Māori reserve lands are able to be used by Kāti Huirapa for their intended purposes;
- vi. Kāti Huirapa are able to carry out customary activities in accordance with tikanga;
- vii. Kāti Huirapa are actively involved in decision making that affects their values and interests in these matters and are able to exercise their kaitiakitaka responsibilities.

SD-08 Infrastructure

Across the District:

- i. improved accessibility and multimodal connectivity is provided through a safe and efficient transportation network that is able to adapt to technological changes;
- ii. the provision of new network infrastructure is integrated and co-ordinated with the nature, timing and sequencing of new development;
- iii. drinking water supplies are protected from the adverse effects of subdivision, use and development;
- iv. the benefits of regionally significant infrastructure and lifeline utilities are recognised and their safe, efficient and effective establishment, operation, maintenance, renewal and upgrading and development is enabled while managing adverse effects appropriately.

SD-09 Rural Areas

A range of primarily productive activities are enabled in the rural environment to enable the ongoing use of land for primary production for present and future generations, while:

- i. protecting versatile soils for productive uses;
- ii. managing the adverse effects of intensive activities on sensitive activities;
- iii. managing the adverse effects of new sensitive activities on primary production;
- iv. avoiding activities that have no functional/operational need to locate in the rural area;
- v. identifying and maintaining the character, qualities and amenity values of rural areas;
- vi. ensuring Future Development Area overlay remains available for future urban or rural lifestyle development.

Earthworks enable development activities throughout the district, including in urban and rural areas as well as in support of business or infrastructural development. Earthworks, as a key component of mining and quarrying, are a business activity that contributes to the economic prosperity of the district.

To achieve the strategic directions, the Plan's earthworks, mining and quarrying provisions need to ensure that the potential adverse effects associated with these activities are reduced and managed in a manner that recognises the character and qualities of the area. This includes ensuring that identified natural areas, the coastal environment, landscapes, indigenous biodiversity and historic heritage values are protected from inappropriate earthworks activities, Ngāi Tahu mana whenua values are recognised and provided for and that natural hazard risks (land instability and flooding risks) associated with earthworks are avoided.

1.4 Problem definition

In identifying the 'problems' or 'issues' associated with the operative Timaru District Plan provisions and the future management of earthworks, mining and quarrying in the Plan, as outlined below in this section, the following matters have been considered:

- The potential effects of these activities, as outlined in Section 1.1 above.

- The issues identified through community consultation as discussed in Section 1.2 above.
- The requirements of the Plan’s relevant strategic directions as outlined in Section 1.3 above.
- The need to give effect to and/or not be inconsistent with the relevant provisions of Part 2 of the RMA, statutory planning documents under the RMA and Ngāi Tahu policies and management plans, as overviewed in Section 1.5 below.
- The approaches adopted in second generation district plans within the Canterbury region, as these plans have been developed under the same national and regional planning framework as will apply to the Plan’s earthworks, mining and quarrying activities. An overview of these approaches is provided below.

District Plan review reports relevant to the defining the problem or issues associated with further earthworks, mining and quarrying provisions of the Plan are listed in the following table.

Title	Brief Synopsis	Link
Timaru District Plan Review – Topic 7 – Soils, Minerals and Earthworks - Discussion Document November 2016	This discussion document (and outlines: the issues associated with mining and quarrying (Issue 2) and earthworks (Issue 3); identifies related statutory matters; the nature of the operative provisions; and potential options (i.e., status quo, amend and/or include) in relation to each of the issues.	https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/discussion-documents Refer to – Topic 7: Soils, Minerals and Earthworks
Timaru District Plan Review – Topic 7 – Soils, Minerals and Earthworks - Discussion Document Summary November 2016	As a summary of the above discussion document, this document outlines the issues associated mining and quarrying (Issue 2) and earthworks (Issue 3).	https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/discussion-documents Refer to – Topic 7: Soils, Minerals and Earthworks
Timaru District Plan Review – Community Feedback and Initial Committee Direction on Discussion Documents April 2018	The community feedback and initial direction of the Committee on Topic 7, and thus Issues 2 and 3 that relate to earthworks, mining and quarrying, is provided on pages 18 and 19 of this document (and also provided in Section 1.2 above of this section 32 Report).	https://www.timaru.govt.nz/services/planning/district-plan/district-plan-review/discussion-documents Refer to - 1070351-Booklet-District-Plan-Review-Discussion-Documents-Community-Feedback-Summary-and-Initial-Committee-Direction-Web.pdf

District Plans within Canterbury

An overview of the approaches adopted in operative second-generation district plans within the Canterbury region, in relation to earthworks, mining and quarrying, is provided in the following table. Many of the district plans overviewed in the following table were all developed prior to the National Planning Standards.

Plan	Local Authority	Description of Approach
<p>Ashburton District Plan (ADP) The ADP became operative in August 2014, with Plan Change 1 becoming operative in April 2017. https://www.ashburtondc.govt.nz/our-services/planning-guidance-and-resource-consents/district-plan/Pages/default.aspx</p>	<p>Ashburton District Council</p>	<p>Earthworks</p> <p>The ADP’s definition for ‘earthworks’, excludes some specific activities.</p> <p>Earthworks provisions are contained in the zone chapters, the aquatic park zone, scheduled activities, and subdivision chapters of the ADP.</p> <p>In the Rural Zone, earthworks are permitted provided they do not exceed between 2,000 to 5,000m³ or 2,000m² in a hectare over a 5-year period, or site per annum, depending on the area, subject to restrictions including the slope of the land, areas identified with values to be protected and various setbacks from water bodies. Subdivision earthworks are permitted up to 5,000m³ on any site per annum, subject to similar restrictions to those that apply in the Rural Zone.</p> <p>Generally, there are no specific earthworks rules that apply in other zones, although in the Open Space Zone, there is a restriction on earthworks near some trees and in the Aquatic Park Zone there are earthworks setbacks from transmission infrastructure stability reasons.</p> <p>Mining and Quarrying</p> <p>The ADP’s definition for ‘minerals’ and ‘mineral extraction’ provide for both mining and quarrying activities.</p> <p>In the Rural Zone, mineral extraction or quarrying is a discretionary activity and cannot occur in areas of Significant Conservation Value and Geo-conservation sites.</p>

Plan	Local Authority	Description of Approach
		<p>Mineral extraction is either a non-complying or prohibited activity in the Residential Zone, most Business sub-zones, the Aquatic Park Zone. In the Business F zone, mineral extraction is a discretionary activity.</p>
<p>Christchurch District Plan (CDP) The CDP became operative in December 2017, and a number of changes have become operative since 2017. https://districtplan.ccc.govt.nz/pages/plan/book.aspx?exhibit=DistrictPlan</p>	<p>Christchurch City Council</p>	<p>Earthworks The CDP earthworks provisions are contained in a district-wide chapter, although there are also a series of controls, depending on the purpose of the earthworks, within flood management and slope stability areas and waterbody setbacks found in other chapters of the CDP.</p> <p>The CDP specifies maximum earthworks volumes ranging from 20m³ per site in all residential, some commercial and open space zones, and 10m³/ha to 5,000m³/ha for other zones and overlays.</p> <p>The provisions are designed to address erosion, inundation or siltation, and adverse effect on surface water or groundwater quality. They also seek to ensure that earthworks do not result in shading, visual impact, loss of privacy or detract from amenity values. The benefits of earthworks are also recognised.</p> <p>The CDP lists several exemptions from the earthwork's rules.</p> <p>Mining and Quarrying Definitions are provided for 'quarry', 'quarrying activity' and 'quarry site rehabilitation', but not for 'mining' or 'mineral extraction'.</p> <p>The CDP established two specific quarry zones. Quarrying activities in the Rural Quarry Zone are permitted in these zones, subject to conditions including site</p>

Plan	Local Authority	Description of Approach
		<p>coverage restrictions (5% of the net site area of 2,000m² whichever is the lesser); depth to groundwater restrictions; setbacks; batter slope restrictions; stockpile controls; screening and rehabilitation requirements. Quarrying in the Rural Quarry Templeton Zone is controlled, restricted discretionary or non-complying depending on compliance with various standards. Some existing quarries outside of these zones are provided for by way of controlled activity rules (e.g., Rule 17.4.1.2(C1) for the quarry in Governors Bay).</p> <p>In other zones, quarrying activities are generally discretionary or non-complying activities, often on the basis that they are activities not specifically provided for by rules.</p>
<p>Hurunui District Plan (HDP) The HDP became operative in June 2018, and Plan Change 1 became operative in February 2019. https://dp.hurunui.govt.nz/eplan/#Rules/0/0/0/0</p>	<p>Hurunui District Council</p>	<p>Earthworks</p> <p>The HDP's definition for 'earthworks', excludes some specific activities.</p> <p>The HDP rules generally seek to permit earthworks where necessary as an ancillary part of a permitted activity. The permitted thresholds for earthworks in a Rural Zone are 1,000m³ in any 12-month period for a single project, with that volume reducing to 100m³ in volume and 500m² in area for earthworks above 900m in elevation. Additional standards relating to cut/fill depth/height and slope gradient are also applied for earthworks in Rural Zones.</p> <p>In settlements, earthworks are a permitted provided they are ancillary to a permitted activity for the subject zone and any other earthworks are a discretionary activity.</p> <p>The zone earthwork rules apply to a range of district wide activities, including</p>

Plan	Local Authority	Description of Approach
		<p>subdivision. In areas of identified landscape value and the coastal environment, some small-scale earthworks are permitted but otherwise require resource consent. The provisions generally address effects such as visual impact particularly in rural areas, sediment run-off, amenity values, dust, land stability, the impact on indigenous biodiversity.</p> <p>Mining and Quarrying The HDP's definition for 'mineral extraction activities' provides for both mining and quarrying activities.</p> <p>In the Rural Zone, mining or quarrying in riverbeds where a regional consent is held, and small-scale farm quarrying are permitted activities (subject to other conditions). Otherwise, mining and quarrying are discretionary or non-complying activities where within 500m of more sensitive zones.</p> <p>Mining and quarrying are identified as non-complying in areas identified with landscape values and the coastal environment, and generally discretionary activity in all other areas where there are no specific rules.</p>

Problems and Issues

The problems and/or issues identified within the Operative District Plan and thus requiring to be addressed within the earthworks, mining and quarrying provisions of the new District Plan are considered consist of the following:

- i. **District-wide earthworks:**
 - **Issue EW1 – Definitions.** The operative Plan does not define earthworks. The Plan is required to use the National Planning Standards definitions relevant to earthworks activities, including 'clean fill material', 'cultivation', 'dust' and 'earthworks'.
 - **Issue EW2 – Limited Control.** Earthworks provisions in the operative Plan are essentially confined to the Rural Zone. There is no control over: earthworks associated with a residential zone development occurring on small allotments; steeper slopes and potentially affecting drainage of surface water with impacts on adjacent property; or, the maximum

height of fill that raises ground level, which can adversely affect amenity and increase flood risk in some areas.

- **Issue EW3 – Thresholds.** There is no evident rationale of earthworks thresholds (volume/area/height/slope) contained in rules or standards, in terms of the management of adverse effects and/or potential risks (i.e., flood and land stability risks).
- **Issue EW4 – Sensitive Areas and Environments.** To protect the district’s sensitive areas and environments, adverse effects from earthworks on the values associated with these areas and environments need to be appropriately managed. Sensitive areas and environments include but are not necessarily limited to areas with identified landscape values; significant natural areas; the coastal environment; riparian areas; heritage sites; and cultural sites.
- **Issue EW5 – Infrastructure.** Infrastructural requirements need to be more appropriately accommodated within the Plan. This entails ensuring that earthworks associated with the development of infrastructure in the district is generally permitted, provided potential adverse effects are being appropriately managed. In addition, the Plan also needs to ensure that the district’s infrastructure is not adversely affected by earthworks activities near infrastructure assets.
- **Issue EW6 – Potential Long-term Amenity Effects.** Stockpiling of materials during earthworks and delays in rehabilitation of a site can adversely affect the visual amenity of an area and result in nuisance amenity effects associated with dust generation. Where earthworks are permitted in the district, these potential adverse effects are not specifically controlled by the operative Plan.
- **Issue EW7 – Duplication with National Regulation.** The introduction of national earthworks regulation in several national environmental standards should be appropriately recognised and accommodated within the Plan.
- **Issue EW8 – Duplication with Regional Rules.** Regional rules regulate the suspended sediment in stormwater from earthworks, earthworks over aquifers, earthworks within proximity to a lake or river in certain circumstances and earthworks in erosion prone land. The Plan provisions need to ensure that they do not duplicate the resource management issues managed by regional rules.
- **Issue EW9 – Accidental Discovery Protocol.** There is a need to identify that earthworks have the potential to discover and thus adversely affect recorded or unrecorded archaeological sites. When this occurs, the Plan should also identify the protocol to be followed and the fact that an archaeological authority from Heritage New Zealand may be required.

ii. Mining and quarrying:

- **Issue MQ1 – Definitions.** The operative Plan does not define ‘quarrying’ separately, rather quarrying is a component of ‘mining’ which is defined in the operative Plan. The Plan is required to use relevant National Planning Standard definitions which include ‘clean fill material’, functional need’, ‘quarry’ and ‘quarrying activities’. ‘Mining’ is not defined in the National Planning Standards and the ‘quarrying activities’ definition does not provide for mining activities.
- **Issue MQ2 – Thresholds.** The operative Plan’s threshold of 100m³ in any one year, in the context of mining and quarrying activities, is relatively small. The appropriateness of this threshold, or any alternative thresholds (if any), need to reflect the need to manage adverse effects and/or potential risks of such activities.

- **Issue MQ3 – Plan Provision Clarity.** The operative Plan, in some instances, mixes mining and quarrying provisions with earthworks provisions. The Plan needs to establish a clear resource management framework for mining and quarrying.
- **Issue MQ4 – Providing for Mining and Quarrying.** The Plan, subject to appropriately mitigating adverse effects, should provide for mining and quarrying activities which have a functional need to locate where the resource is located and, in some instances, near the area of demand.
- **Issue MQ5 – Proximity to Sensitive Activities.** It is inappropriate for mining and quarrying to locate in areas where activities sensitive to these activities are located and/or anticipated to be located (i.e., Residential Zones etc.). Management of this risk can include buffers, setbacks and/or more restrictive rules in some zones.
- **Issue MQ6 – Duplication with Regional Rules.** Regional rules regulate the discharges to air from mining and quarrying, and where such activities establish within waterbodies. The Plan provisions need to ensure that it addresses land use considerations of these activities and does not duplicate the resource management issues managed by regional rules.

1.5 Statutory and Planning Context

Resource Management Act

Part 2 of the RMA sets out the purpose and principles of the Act, being “to promote the sustainable management of natural and physical resources”. Section 5(2) of the RMA then defines sustainable management. The earthworks, mining and quarrying provisions of this Plan are to give effect to this purpose.

Section 6 of the RMA sets out matters of national importance that are to be recognised and provided for within the Plan. Matters of national importance relevant to the earthworks, mining and quarrying provisions of the Plan are:

- Sections 6(a) and (b). Values associated with the natural character of the coastal environment, the district’s waterbodies and margins as well as outstanding natural features and landscapes are to be protected from inappropriate earthworks, mining and quarrying activities.
- Section 6(c). Areas of significant indigenous vegetation and significant habitats of indigenous are to be protected, which includes from the adverse effects of earthworks, mining and quarrying.
- Section 6(e). The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga are to be provided for when considering earthworks, mining and quarrying activities
- Section 6(f). Historic heritage values are to be protected from inappropriate earthworks, mining and quarrying activities.
- Section 6(h). Significant natural hazard risks that may arise from earthworks, mining and quarrying activities, namely land stability and flooding risks, are to be managed.

Section 7 requires particular regard to be had to ‘other matters’. The other matters relevant to the earthworks, mining and quarrying provisions of the Plan are:

- Sections 7(a) and (aa). Kaitiakitanga and the ethic of stewardship in relation to the district’s land resource are to be reflected in the Plan provisions for earthworks, mining and quarrying.
- Section 7(b). Earthworks, mining and quarrying activities, subject to appropriate restriction and control provisions in the Plan, are to provide for the efficient use and development of resources, namely the land and built resources of the district.

- Section 7(c). Potential adverse amenity effects from earthworks, mining activities, namely effects of visual amenity and from noise or dust, are to be managed to ensure that amenity values in the district are maintained or enhanced.
- Section 7(d). Plan provisions for earthworks, mining and quarrying activities are to recognise the intrinsic values of ecosystems.
- Section 7(f). Potential adverse effects from earthworks, mining and quarrying activities are to be managed to ensure that the quality of the district's environment is maintained and enhanced.
- Section 7(g). Mining and quarrying activities seek to retrieve finite resources.

Section 8 of the RMA requires the principles of the Treaty of Waitangi to be taken into account. This entails ensuring that areas of value and interest to Ngāi Tahu are protected from inappropriate earthworks, mining and quarrying activities.

National and regional planning instruments potentially relevant to the earthworks, mining and quarrying provisions of the Plan are as listed in the tables below.

National Policy Statements / National Planning Standards	Relevance
National Policy Statement on Electricity Transmission 2008 (NPS-ET)	<p>The NPS-ET recognises the national significance of electricity transmission network and seeks to facilitate the operation, maintenance, upgrade and development of the network while management of adverse environmental effects of the activity, and other activities on the network (Objective 1).</p> <p>To give effect to the NPS-ET, earthworks Plan provisions associated with the maintenance, upgrading or development of the electricity network must be recognised and provided for, while ensuring the adverse effects of such earthworks are avoided, remedied, or mitigated (Policies 2 and 5).</p> <p>Plan provisions for earthworks associated with other activities, mining and quarrying in the vicinity of the transmission network must be managed to avoid reverse sensitivity effects on the network (Policy 10).</p>
New Zealand Coastal Policy Statement 2010 (NZCPS)	<p>The NZCPS states the policy framework, under the RMA, for New Zealand's coastal environment. The coastal environment includes land inland of the coastal marine area.</p> <p>NZCPS objectives to be given effect to in the earthworks, mining and quarrying Plan provisions, where these activities take place in the coastal environment, include: ensuring the integrity, form, function and resilience of the coastal environment is sustained (Objective 1); ensuring that natural character is preserved and natural features and landscape values are protected (Objective 2); and, enabling the use and development of the coastal environment within appropriate limits and/or where there is a functional need, provided values of the area are recognised and protected and/or not compromised (Objective 6).</p>

National Policy Statement for Freshwater Management 2020 (NPS-FM)	<p>The NPS-FM addresses issues relating to water quality and water quantity.</p> <p>While water quality and quantity effects are largely managed by the regional council, the latest NPS-FM now specifically requires territorial authorities to include objectives, policies, and methods in their district plan to promote positive effects, and avoid, remedy, or mitigate adverse effects (including cumulative effects), of urban development on the health and well-being of water bodies, freshwater ecosystems, and receiving environments. Plan provisions for earthworks, mining and quarrying will need to ensure that those potential effects relevant to the District Plan on water quality are managed in a manner that gives effect to the NPS-FM.</p>
National Planning Standard 2019 (NPS)	<p>The Plan structure and provisions give effect to the NPS.</p> <p>NPS definitions relevant to earthworks, mining and quarrying provisions of the Plan are – ‘clean fill material’, ‘cultivation’, ‘dust’ and ‘earthworks.’</p> <p>NPS definitions specifically relevant to quarrying provisions of the Plan are – ‘clean fill material’, ‘functional need’, ‘quarry’ and ‘quarrying activities.’</p> <p>There is no definition for mining in the NPS.</p> <p>The NPS District Plan Structure includes a Chapter on Earthworks under General District-Wide Matters.</p>

National Environment Standards	Relevance
National Environmental Standards for Air Quality 2004 (NES-AQ)	<p>The NES-AQ contains mandatory national regulations in relation to air quality. The discharge of fine particulates (PM₁₀), which can be a small portion of dust, is amongst the contaminants regulated. The regulation of PM₁₀ discharges is managed by regional councils and therefore is not a matter to be addressed by the earthworks, mining, and quarrying provisions of the Plan.</p>
National Environmental Standards for Electricity Transmission Activities 2009 (NES-ETA)	<p>The NES-ETA establishes a regulatory framework that relates to the operation, maintenance, upgrading, relocation, or removal of existing transmissions lines.</p> <p>Regulations 33 to 36 provide for earthworks associated with existing transmissions lines. Conditions attached to the permitted activity rule (Regulation 33) specify: annual volume limits; a range of management controls in relation to erosion and sediment control as well as land stability and flood risk considerations; site stabilisation requirements; and identifies areas where permitted earthworks cannot occur. Regulation 34 (controlled activities) applies to earthworks not provided for by Regulations 33, 35 and 36. Regulations 35 and 36 (restricted discretionary activities) relate to earthworks in historic heritage areas and where there is potentially contaminated land.</p>

National Environment Standards	Relevance
	The Plan cannot be more lenient than the NES-ETA.
National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NES-CS)	<p>In the context of potential Plan provisions for earthworks, mining and quarrying activities in the district, the NES-CS establishes a regulatory framework for the sampling of and disturbance (i.e., earthworks) of contaminated soils.</p> <p>The Plan cannot be more lenient than the NES-CS.</p>
National Environmental Standards for Telecommunications Facilities 2016 (NES-TF)	<p>The NES-TF establishes a regulatory framework for the installation and operation of telecommunications facilities. The regulations do not apply to activities in the coastal marine area or within surface water bodies.</p> <p>Regulation 53 contains earthworks controls that apply to ‘regulated activities’ provided for by the NES-TF. This regulation identifies that earthwork are to be carried in accordance with a management plan and that the regulation is complied with if: in ‘special places’ the district plan earthworks are complied with; and, in rural zones the earthworks for each facility do not exceed 450m³. Regulation 54 states that regional rules continue to apply to all telecommunications facility related earthworks.</p> <p>The Plan rules can be more stringent than the NES-TF.</p>
National Environmental Standard for Plantation Forestry 2018 (NES-PF)	<p>The NES-PF establishes a regulatory framework for a range of activities associated with plantation forestry operations.</p> <p>In relation to territorial authorities functions under the RMA, the NPS-PF permits: earthworks without any restrictions or conditions: earthworks (Regulation 23); forestry quarrying (Regulation 51), subject to conditions, including but not limited to, the volume of extraction not exceeding 200m³, dwelling setbacks and associated volume restrictions; setbacks from waterbodies for earthworks (Regulation 29) and mechanical land preparation without any restrictions of conditions (Regulation 73).</p> <p>Plan rules may only be more stringent than the NES-PF if the rules (Regulation 6): give effect to a NPS-FM objective or specific policies of the NZCPS; for the protection of outstanding natural features and landscape or significant natural areas; and unique or sensitive environment.</p>

Regional policy / plans	Relevance
<p>Canterbury Regional Policy Statement (CRPS)</p>	<p>The CRPS identifies the region’s resource management issues and provides policy framework, which district plans must give effect to, to achieve integrated management of the region’s natural and physical resources.</p> <p>Objectives and policies directly relevant to the earthworks, mining, and quarrying activities in the district, include:</p> <ul style="list-style-type: none"> • Land Use and Infrastructure (Chapter 5) – Objectives 5.2.1 and 5.2.2 and Policies 5.3.2, 5.3.9 to 5.3.12. • Fresh Water (Chapter 7) – Objective 7.2.1 and 7.2.3 and Policies 7.3.1, 7.3.3 and 7.3.6(2). • The Coastal Environment (Chapter 8) – Objectives 8.2.2 to 8.2.4 and Policies 8.3.3, 8.3.4 and 8.3.6. • Ecosystems and Indigenous Biodiversity (Chapter 9) – Objective 9.2.3. • Beds of Rivers and Lakes and their Riparian Zones (Chapter 10) – Objectives 10.2.1 and 10.2.2 and Policies 10.3.1, 10.3.2 and 10.3.4. • Natural Hazards (Chapter 11) – Objective 11.2.1 and Policies 11.3.1, 11.3.2, 11.3.3 and 11.3.5. • Landscape (Chapter 12) – Objectives 12.2.1 and 12.2.2 and Policy 12.3.2. • Historic Heritage (Chapter 13) – Objectives 13.2.1 and 13.2.2. • Air Quality (Chapter 14) – Objective 14.2.2 and Policy 14.3.3. • Soils (Chapter 15) – Objective 15.2.2 and Policy 15.3.2. • Contaminated Land (Chapter 17) – Objective 17.2.1 and Policy 17.3.2.
<p>Regional Coastal Environment Plan (RCEP)</p>	<p>The RCEP aims to provide for the sustainable management of the natural and physical resources of the region’s coastal environment. The RCEP contains objectives, policies, and rules in relation to the CMA and the coastal environment.</p> <p>The RCEP regulates a range of land use activities landward of the CMA within coastal hazard zones. As a brief overview, coastal hazard zone rules relevant to Plan earthworks, mining and quarrying activities include:</p> <ul style="list-style-type: none"> • Permitted activity - Earthworks for network utility services, except for access tracks across active beach systems and provided the natural landform is reinstated (Rule 9.1(g)). • Discretionary activity – Provided not prohibited by Rules 9.3 or 9.4; earthworks greater than 5m³ per 100m² (Rule 9.2(e)); and the removal of more than 5m³, in any 12-month period of natural material from an active beach system (Rule 9.2(f)).

Regional policy / plans	Relevance
<p>Canterbury Land and Water Regional Plan (LWRP)</p>	<p>The LWRP establishes a resource management framework for the region's water and land resources.</p> <p>LWRP contains region-wide rules for earthworks, mining and quarrying include the following:</p> <ul style="list-style-type: none"> • Gravel from Lakes and Rivers (Rules 5.147 to 5.153). These rules provide for gravel quarrying activities, and associated activities, as permitted to discretionary activities. Rule 5.148 permits the extraction of gravel, subject to conditions, including that extraction does not occur in specific areas characterised by identified values and volume restrictions which depend on location and time of year (i.e., volume restrictions range from 5m³ to 20m³ over a 12-month period). • Earthworks in Riparian Areas (Rules 5.167 to 5.169). Rules 5.167 and 5.168 permit such earthworks, depending on the nature of the waterbody, its location, and the nature of the activity. Earthworks not provided for as permitted activities are a restricted discretionary activity (Rule 5.169). Riparian areas are either 5 or 10m outside of the waterbodies bed, depending on the nature and location of the waterbody. • Earthworks in Erosion-prone areas (Rules 5.170 and 5.175). A range of land development activities are permitted by Rule 5.170, including: earthworks within a production forest (g); construction of fences (ga); construction of walking tracks up to 1.5m in width (h); maintenance of existing transport networks (i); network utility related earthworks (j); and, other earthworks provided the volume does not exceed 10m³ per site or hectare (whichever is the greater) and cut or fill does not exceed 0.5m (k) to (m). Earthworks not provided for by this rule are a restricted discretionary activity (Rule 5.171). • Excavation and Deposition over Aquifers (Rules 5.175 to 5.178). Rule 5.175 permits the excavation of land, subject to conditions which vary depending on the nature of the aquifer, but generally revolve around 1m of material being retained above the groundwater, the volume not exceeding 100m³ and the activity not occurring within 50m of a surface waterbody. Earthworks that do not comply with Rule 5.175 are a restricted discretionary activity (Rule 5.176). Rules 5.177 and 5.178 provide for the deposition of material as permitted and restricted discretionary activities on the volume of material (i.e., <50m³ or not) and the amount of separation from groundwater (and other requirements).

Regional policy / plans	Relevance
	<p>Proposed Plan Change 7, notified in July 2019, proposes minor amendments to the above rules, generally for the purposes of clarity. The proposed amendment does not change the rule status.</p>
<p>Canterbury Regional Air Plan (CARP)</p>	<p>The CARP establishes a resource management regime to manage air pollution, including dust, a potential effect of earthworks, mining, and quarrying activities.</p> <p>CARP contains regional rules for the discharge of dust to air as follows:</p> <ul style="list-style-type: none"> • Rule 7.3 to 7.5. Where an activity is not managed by another rule (as overviewed below), the discharge of dust is permitted (Rule 7.3) provided there is no adverse effect, including offensive or objectionable effects, beyond the property. Rules 7.4 and 7.5 then provide for such discharges, depending on compliance with conditions, as restricted discretionary or non-complying activities. • Land development, construction of buildings etc. (Rules 7.32 and 7.34). Rule 7.32 permits the discharge of dust from land development activities, provided: the discharge does not cause an offensive or objectionable effect beyond the boundary; and, depending on the height of the building and area of development (threshold of 1,000m²) that a dust management plan is prepared and implemented. Rules 7.33 and 7.34 then provide for such discharges, depending on compliance with conditions, as restricted discretionary or non-complying activities. • Bulk solid materials (Rules 7.35 and 7.36). Bulk solids materials include gravel, quarried rock, coal, and rock aggregate. • Rule 7.35 permits the discharge of dust from subject to conditions, including but not limited to: no offensive or objectionable effect (1); restrictions on the per hourly handling rates depending on whether this occurs indoors or outdoors (2) to (4); the requirement for a dust management plan (5); the discharge is 200m from a sensitive activity of place of significance to Ngāi Tahu (6); and, where the discharge is from production blasting at a quarry the discharge does not occur within 500m of a sensitive activity or place of significance to Ngāi Tahu. • Rule 7.36 permits the discharge of dust from the outdoor storage of such material subject to conditions including: no offensive or objectionable effect (1); restrictions on the amount of material stored when less than 3.5mm in diameter (2); requirement/s for a dust management plan

Regional policy / plans	Relevance
	(3) and (4); the discharge is 100m from a sensitive activity of place of significance to Ngāi Tahu (5).

1. Iwi Policies and Management Plans

Ngāi Tahu policies and management plans potentially relevant to the earthworks, mining and quarrying provisions of the Plan are as listed in the table below.

Ngāi Tahu policies and management plans	Relevance
Ngāi Tahu Freshwater Policy (NTFP)	<p>The NTPS (Part 2) establishes a framework, through objectives, policies, and strategies for Wāhi Tapu, Mauri, Mahinga Kai and Kaitiakitanga, that aim to deliver, for Ngāi Tahu, an active role in the management of freshwater bodies within its rohe.</p> <p>While the focus of the NTPS is on freshwater resources, policies relevant to the Plan's earthworks, mining and quarrying provisions include protection of wāhi tapu sites and other sites of significance identified by Papatipu Rūnanga; and ensure integrated management of resources is achieved.</p>
Te Whakatau Kaupapa Ngāi Tahu Resource Management Strategy for the Canterbury Region (Te Whakatau Kaupapa)	<p>Te Whakatau Kaupapa, initially published in 1990 and reprinted in 1992, was developed to assisting planning authorities by identifying attitudes, beliefs, and policies which Māori have in relation to natural resources.</p> <p>Section 4.3 of Te Whakatau Kaupapa contains specific mining policies relevant to the earthworks, mining, and quarrying provisions of the Plan. The mining policies identify that:</p> <ul style="list-style-type: none"> • Mining should not be permitted in areas of importance to Ngāi Tahu (Policy 1); and • Existing and future mining must have regard to tangata whenua interest in land and water (Policy 2).
Iwi Management Plan of Kati Huirapa (Kati Huirapa IMP)	<p>The Kati Huirapa IMP, dated July 1992, contains land, water, and air policies for the area between the Raikaia and Waitaki Rivers.</p> <p>Policies relevant to the earthworks, mining and quarrying provisions of the Plan include:</p> <ul style="list-style-type: none"> • To protect hills and mountains, there is to be no scarring with tracks and roads; and • The disturbance of ground where there was or is a traditional or customary use, where any bones or artefacts are disturbed, are to be referred to Takata Whenua first.

2 Other Legislation

The Heritage New Zealand Pouhere Taonga Act 2014 promotes amongst other things the protection of the historical and cultural heritage of New Zealand. Heritage New Zealand Pouhere Taonga may make recommendations to the local authorities where an historic or wāhi tapu area is located as to the appropriate measures that those local authorities should take to assist in the protection of the historic area.

2 Approach to Evaluation

2.1 Scale and significance

The level of detail undertaken for the evaluation of Plan provisions for earthworks, mining and quarrying has been determined by the following assessment of the scale and significance of implementing Plan provisions.

The scale and significance assessment consider the issues identified in Section 1.4 of this section 32 Report in the context of the environmental, economic, social, and cultural effects associated with the issues. The assessments, undertaken within the following tables, consider the district-wide earthworks and mining and quarrying issues separately. Where appropriate, issues have been grouped and assessed accordingly. A summary of the overall scale and significance assessment is also provided.

District-wide Earthworks

Issue EW1: Definitions		
Reasons for change in policy	District Plan Review National Planning Standards	Low Earthworks is not defined in the operative Plan.
Relevant Statutory Considerations / Drivers	National Planning Standards NPS	Low The Plan must use National Planning Standards definitions relevant to earthworks activities.
Degree of shift from status quo required	District Plan Review National Planning Standards	Low Earthworks is not defined in the operative Plan. The Plan must use relevant National Planning Standards definitions.
Who and how many will be affected?	Wide range of parties affected as land development activities often entail earthworks activities.	Low The Plan is required to use relevant National Planning Standards definitions. Inclusion of definitions provides consistent clarity for all parties and avoids potential confusion.
Degree of impact on, or interest from iwi / Māori	RMA Part 2	Low The Plan is required to use relevant National Planning Standards definitions.
When will affects occur?	-	Not applicable Provision of relevant National Planning Standards definitions does not give rise to effects.
Geographic scale of impacts / issue	District wide.	Low The Plan is required to use relevant National Planning Standards definitions. Inclusion of definitions assists with consistency and clarity, thus avoiding potential confusion.
Type of effect(s)	-	Not applicable

Issue EW1: Definitions		
		Provision of relevant National Planning Standards definitions does not give rise to effects.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review National Planning Standards	Low The Plan must give effect to the National Planning Standards, including the use of definitions. Inclusion of definitions assists with consistency and clarity, thus avoiding potential confusion.
Overall Assessment of Scale and Significance		Low

Issue EW2: Limited Control		
Issue EW3: Thresholds		
Reasons for change in policy	District Plan Review RMA Part 2 Regional policy and plans Kati Huirapa IMP	Medium to High The operative Plan does not apply a consistent approach to earthworks management based on a consistent evaluation of potential adverse effects and risks.
Relevant Statutory Considerations / Drivers	District Plan Review RMA Part 2 NPSET, NPSFM Regional policy and plans Kati Huirapa IMP	Medium Adverse effects of earthwork activities in the district need to be consistently managed to ensure that adverse effects are avoided, remedied, or mitigated.
Degree of shift from status quo required	District Plan Review RMA Part 2 NPSET, NPSFM, NZCPS Regional policy and plans Kati Huirapa IMP	Medium to High The earthworks provisions of the operative Plan are essentially confined to the Rural Zone. Application of district-wide earthworks provisions that manage adverse effects and potential risks consistently across the district represent a shift in approach.
Who and how many will be affected?	Wide range of parties affected as land development activities often entail earthworks activities.	Medium to High The application of district-wide earthworks provisions, rather than just Rural Zone provisions, has the potential to affect all parties undertaking land development in the district.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 NPSET, NPSFM, NZCPS Regional policy and plans Kati Huirapa IMP	Medium Application of district-wide earthworks provisions that manage potential adverse effects on a consistent basis throughout the district, including on cultural values, and potential risks are considered a benefit to the matters of interest to iwi / Māori.

Issue EW2: Limited Control Issue EW3: Thresholds		
When will affects occur?	District Plan Review	Medium The effects associated with earthworks can occur at different time i.e., during construction or development (e.g., siltation, dust etc.) and post construction or development (e.g., visual and flood exacerbation). The nature of effects associated with earthworks activities are well understood.
Geographic scale of impacts / issue	District wide	Medium to High The application of district-wide earthworks provisions has the potential to have impacts beyond the current coverage of the operative Plan.
Type of effect(s)	District Plan Review	Medium The nature of effects associated with earthworks activities are well understood. The application of district-wide earthworks provisions in the Plan can provide for improved and consistent management of the potential adverse effects and risks associated with earthworks.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review RMA Part 2 Regional policy and plans Kati Huirapa IMP	Low The effects of earthworks activities are well understood, as are the approaches to managing potential adverse effects and risks through planning provisions.
Overall Assessment of Scale and Significance		Medium to High

Issue EW4: Sensitive Areas and Environments Issue EW6: Potential Long-term Amenity Effects		
Reasons for change in policy	District Plan Review RMA Part 2 NPSET, NPSFM, NZCPS, NESPF Regional policy and plans	Medium to High The operative Plan does not apply a consistent approach to earthworks management, including in relation to potential adverse effects on sensitive areas and environments and long-term amenity effects.
Relevant Statutory Considerations / Drivers	District Plan Review RMA Part 2 NPSET, NPSFM, NZCPS, NESPF Regional policy and plans	Medium Adverse effects of earthwork activities in the district need to be consistently managed to ensure that adverse effects, including on sensitive areas and environments and long-term amenity effects, are avoided, remedied or mitigated.

Issue EW4: Sensitive Areas and Environments Issue EW6: Potential Long-term Amenity Effects		
Degree of shift from status quo required	District Plan Review RMA Part 2 Regional policy and plans	Medium to High Application on district-wide earthworks provisions that manage adverse effects on sensitive areas and environments and long-term amenity effects consistently across the district represent a shift in approach to that provided in the operative Plan.
Who and how many will be affected?	Wide range of parties affected as land development activities often entail earthworks activities.	Medium to High The application of district-wide earthworks provisions, rather than just Rural Zone provisions, which manages adverse effects on sensitive areas and environments and long-term amenity effects, has the potential to affect all parties undertaking land development in the district.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 NPSFM, NZCPS Regional policy and plans	Medium The application of district-wide earthworks provisions that manage potential adverse effects on a consistent basis throughout the district, including on areas or environments of significance to iwi / Māori, is considered a benefit to the matters of interest to iwi / Māori.
When will affects occur?	District Plan Review	Medium The nature of effects on sensitive areas and environment and long-term amenity effects from earthworks activities are well understood. These effects, which are not specifically controlled under the operative Plan, are already occurring within the district.
Geographic scale of impacts / issue	District wide	Medium to High The application of district-wide earthworks provisions, to manage potential effects on sensitive areas and environments and long-term amenity effects, has the potential to have impacts beyond the current coverage of the operative Plan.
Type of effect(s)	District Plan Review	Medium The nature of effects associated with earthworks activities are well understood. The application of district-wide earthworks provisions in the Plan can provide for improved and consistent management of the potential adverse effects on sensitive areas and environments and long-term amenity effects.

Issue EW4: Sensitive Areas and Environments Issue EW6: Potential Long-term Amenity Effects		
Degree of policy risk, implementation risk, or uncertainty	District Plan Review RMA Part 2 NPSET, NPSFM, NZCPS, NESPf Regional policy and plans	Low The effects of earthworks activities are well understood, as are the approaches to managing potential adverse effects on sensitive areas and environments and long-term amenity effects through planning provisions.
Overall Assessment of Scale and Significance		Medium to High

Issue EW5: Infrastructure		
Reasons for change in policy	District Plan Review NPS-ET, NES-ETA and NES-TF RPS	Low Infrastructure in the district meets the local and regional service needs of the community. While the operative Plan identifies specific NES that prevail over operative rules in relation to some specific infrastructural activities, further clarity on the application of the requirements of national and regional planning documents is considered necessary.
Relevant Statutory Considerations / Drivers	District Plan Review NPS-ET, NES-ETA and NES-TF RPS	Medium Providing for infrastructural earthworks, and management of other parties' earthworks in the vicinity of infrastructure facilities, is required to clearly give effect to national and regional planning documents.
Degree of shift from status quo required	District Plan Review NPS-ET, NES-ETA and NES-TF RPS	Medium The need to clearly give effect to relevant national and regional planning provisions represents a shift in approach to that provided in the operative Plan.
Who and how many will be affected?	Predominantly infrastructure providers	Medium The application of consistent infrastructural earthworks provisions, which clearly give effect to national and regional planning provisions, will benefit infrastructure providers. Other parties undertaking earthworks within the vicinity of infrastructure facilities may also be affected.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 RPS	Low Application of consistent district-wide earthworks provisions for and within proximity of infrastructural facilities,

Issue EW5: Infrastructure		
		subject to addressing Issue EW4 (as above), are considered a benefit to the matters of interest to iwi / Māori.
When will affects occur?	District Plan Review	Medium The nature of effects from and on infrastructural earthworks activities are well understood. These effects, which are not all clearly provided for or controlled under the operative Plan in a manner consistent with national and regional planning documents, are already occurring within the district.
Geographic scale of impacts / issue	District wide	Medium The application of district-wide earthworks provisions for and on infrastructure facilities, to clearly give effect to national and regional planning documents, has the potential to have impacts beyond the current coverage of the operative Plan.
Type of effect(s)	District Plan Review	Medium The nature of effects associated with earthworks activities from and on infrastructural facilities are well understood. The application of district-wide earthworks provisions in the Plan can provide for improved and consistent management of the effects from and on infrastructural activities.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review NPS-ET, NES-ETA and NES-TF RPS	Low The effects of earthworks activities from and on infrastructural activities are well understood, as are the approaches to appropriately managing these activities through planning provisions.
Overall Assessment of Scale and Significance		Low to Medium

Issue EW7: Duplication with National Regulation		
Reasons for change in policy	District Plan Review NES-ETA, NES-CS, NES-TF and NES-PF	Low While the operative Plan identifies that NES provisions prevail over operative rules, although the NES-PF is not specifically referred to. The continued and appropriate recognition of national regulation should be provided for in the Plan.

Issue EW7: Duplication with National Regulation		
Relevant Statutory Considerations / Drivers	District Plan Review NES-ETA, NES-CS, NES-TF and NES-PF	Low The Plan must give effect to relevant national regulation. The Plan can be more stringent, subject, in some circumstances, to meeting specific requirements.
Degree of shift from status quo required	District Plan Review NES-ETA, NES-CS, NES-TF and NES-PF	Low While the operative Plan identifies that NES provisions prevail over operative rules, although the NES-PF is not specifically referred to. The Plan must give effect to all relevant national regulation.
Who and how many will be affected?	Wide range of parties	Low The Plan must give effect to all relevant national regulation. Providing further clarity around the application of relevant national regulation in the Plan, provides consistent clarity for all parties and avoids potential confusion.
Degree of impact on, or interest from iwi / Maori	District Plan Review NES-ETA, NES-CS, NES-TF and NES-PF	Low The Plan must give effect to all relevant national regulation.
When will affects occur?	District Plan Review	Low The operative Plan identifies that NES provisions prevail over operative rules, although the NES-PF is not specifically referred to.
Geographic scale of impacts / issue	District wide	Low The Plan must give effect to all relevant national regulation. Providing further clarity around the application of relevant national regulation in the Plan, provides consistent clarity for all parties and avoids potential confusion.
Type of effect(s)	District Plan Review	Low The operative Plan identifies that NES provisions prevail over operative rules, although the NES-PF is not specifically referred to. The permitted baseline for earthworks which are regulated nationally are already in place. The nature of effects associated with other earthworks activities provided for by national regulation are well understood as are the mechanisms for avoiding, remedying or mitigation any adverse effects.

Issue EW7: Duplication with National Regulation		
Degree of policy risk, implementation risk, or uncertainty	District Plan Review NES-ETA, NES-CS, NES-TF and NES-PF	Low The Plan must give effect to relevant national regulation and the operative Plan already identifies that NES provisions prevail over operative rules (although the NES-PF is not specifically referred to). The nature of effects associated with other earthworks activities provided for by national regulation are well understood (including permitted earthworks), as are the mechanisms for avoiding, remedying or mitigation any adverse effects.
Overall Assessment of Scale and Significance		Low

Issue EW8: Duplication with Regional Rules		
Reasons for change in policy	District Plan Review Regional Plans	Low The operative Plan contains rules relating to earthworks in proximity to waterbodies which are like those in the Regional Plan. Other regional plan rules will also apply to these activities, and it may not be necessary to include similar controls within the Plan
Relevant Statutory Considerations / Drivers	District Plan Review Regional Plans	Low The Plan must not be inconsistent with regional plans. While land use rules for earthworks should be included in the Plan, to ensure efficient resource management approaches in the district it is considered that unnecessary duplication with regional plan rules should be avoided.
Degree of shift from status quo required	District Plan Review Regional Plans	Low The Plan must not be inconsistent with regional plans. The operative Plan contains rules relating to earthworks in proximity to waterbodies which are like those in the Regional Plan.
Who and how many will be affected?	Wide range of parties	Low The Plan must not be inconsistent with regional plans. Ensuring that the Plan does not unnecessarily duplicate regional rules

Issue EW8: Duplication with Regional Rules		
		avoids unnecessary regulation and potential confusion.
Degree of impact on, or interest from iwi / Maori	District Plan Review Regional Plans	Low The Plan must not be inconsistent with regional plans. Regional plans contain rules that regulate earthwork activities in relation to the district's resources managed by CRC.
When will affects occur?	District Plan Review	Low The operative Plan contains rules relating to earthworks in proximity to waterbodies which are like those in the Regional Plan. Other regional plan rules will also apply to these activities, and it may not be necessary to include similar controls within the Plan
Geographic scale of impacts / issue	District wide	Low The Plan must not be inconsistent with regional plan rules. Operative regional rules already apply to earthworks. Ensuring that the Plan does not unnecessarily duplicate regional rules avoids unnecessary regulation and potential confusion.
Type of effect(s)	District Plan Review	Low The Plan must not be inconsistent with regional plan rules. Operative regional rules already apply to earthworks. Ensuring that the Plan does not unnecessarily duplicate regional rules avoids unnecessary regulation and potential confusion.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review Regional Plans	Low The Plan must give effect to the Regional Policy Statement and be consistent with the Regional Plans. Operative regional rules already apply to earthworks.
Overall Assessment of Scale and Significance		Low

Issue EW9: Accidental Discovery Protocol (ADP)		
Reasons for change in policy	District Plan Review RMA Part 2	Medium While ADP conditions may be attached to development resource consents, the operative Plan does not identify a

Issue EW9: Accidental Discovery Protocol (ADP)		
		requirement for ADP's to be always implemented, including for permitted activities.
Relevant Statutory Considerations / Drivers	District Plan Review NZHPTAct RMA Part 2	Medium The potential adverse effects of the accidental discovery of archaeological and historic sites during earthworks needs to be managed in accordance with an ADP.
Degree of shift from status quo required	District Plan Review RMA Part 2	Medium The identification that an ADP applies to all earthwork's activities, including permitted activities, represents a shift in approach to that provided in the operative Plan.
Who and how many will be affected?	Wide range of parties as land development activities often entail earthworks activities	Medium Although a legislative requirement under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPT Act), the identification that an ADP applies to all earthwork's activities in the district, including permitted activities, has the potential to affect all parties undertaking land development in the district.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 Kati Huirapa IMP	Medium The identification that an ADP applies to all earthworks activities in the district ensures that the potential adverse effects of the accidental discovery of sites of significance to iwi / Māori are appropriately managed. This is because iwi /Māori will be part of the management and decision process.
When will affects occur?	District Plan Review	Medium The nature of an ADP, and the mechanisms for managing accidental discoveries arising from earthworks activities, are well understood. At present, while ADP conditions may be attached to development resource consents and are a legislative requirement under the HNZPT Act, the identification of ADP requirements in the Plan for all earthworks, including for permitted activities, more clearly and consistently identifies this requirement.
Geographic scale of impacts / issue	District wide	Medium The identification of an ADP for all earthworks in the district, including permitted activities, has the potential to

Issue EW9: Accidental Discovery Protocol (ADP)		
		have impacts beyond the current coverage of the operative Plan.
Type of effect(s)	District Plan Review	<p>Medium</p> <p>The nature of an ADP, and the mechanisms for managing accidental discoveries arising from earthworks activities, are well understood.</p> <p>The identification that an ADP applies to all earthwork's activities, including permitted activities, in the Plan can provide for improved and consistent management of the potential adverse effects of archaeological and historic values in the district.</p>
Degree of policy risk, implementation risk, or uncertainty	District Plan Review RMA Part 2	<p>Low</p> <p>The nature of an ADP, and the mechanisms for managing accidental discoveries arising from earthworks activities, are well understood.</p>
Overall Assessment of Scale and Significance		Low to Medium

Summary

Overall, the scale and significance of implementing Plan provisions for earthworks to address the above identified issues is **medium to high**. Earthworks are a component of many development activities which means that earthworks rules have the potential to affect a wide range of people within the district. While the effects associated with earthworks activities are well understood, it is important that adverse effects are appropriately managed, while also recognising that it is also important to achieve a balance in terms of the level of intervention having considered the nature of the environment and the context of the potential effects that will arise. Additional consenting requirements associated with earthworks consents can impose additional costs, but the costs to the environment could also be high if activities are not appropriately managed. Also, important to avoid unnecessary duplication and/or repetition of Regional Council controls, to avoid increased costs.

Mining and Quarrying

Issue MQ1: Definitions		
Reasons for change in policy	District Plan Review National Planning Standards	<p>Low In the operative Plan 'quarrying' is a component of 'mining', which is defined.</p> <p>The Plan must use NPS definitions and the NPS provides definitions for 'quarry' and 'quarrying activities but not 'mining'.</p>
Relevant Statutory Considerations / Drivers	District Plan Review National Planning Standards	<p>Low The NPS must use relevant NPS definitions.</p> <p>Although an NPS definition for mining is not available, the nature of mining, from a resource management perspective, is well understood and can be appropriately defined.</p>
Degree of shift from status quo required	District Plan Review National Planning Standards	<p>Low As assessed under 'Reasons for change in policy'.</p>
Who and how many will be affected?	Small number, namely parties involved in quarrying and mining activities in the district	<p>Low The Plan is required to use relevant NPS definitions.</p>
Degree of impact on, or interest from iwi / Māori	RMA Part 2	<p>Low The Plan is required to use relevant NPS definitions.</p>
When will affects occur?	-	<p>Not applicable Provision of definitions in the Plan does not give rise to effects.</p>
Geographic scale of impacts / issue	General Rural Zone	<p>Low The Plan is required to use relevant NPS definitions. Inclusion of definitions assists with consistency and clarity, thus avoiding potential confusion.</p>
Type of effect(s)	-	<p>Not applicable Provision of definitions in the Plan does not give rise to effects.</p>
Degree of policy risk, implementation risk, or uncertainty	District Plan Review NPS	<p>Low The Plan must give effect to the NPS, including the use of definitions.</p>

Issue MQ1: Definitions		
		Inclusion of definitions assists with consistency and clarity, thus avoiding potential confusion.
Overall Assessment of Scale and Significance		Low

Issue MQ2: Thresholds		
Reasons for change in policy	District Plan Review RMA Part 2	Medium The resource consent threshold trigger in the operative Plan is relatively small in the context of the nature of mining and quarrying activities. Any amended thresholds (if any) need to reflect a consistent approach to management of potential adverse effects and risks associated with these activities.
Relevant Statutory Considerations / Drivers	District Plan Review RMA Part 2	Medium Adverse effects of mining and quarrying activities in the district need to be consistently identified and managed to ensure that adverse effects are avoided, remedied, or mitigated.
Degree of shift from status quo required	District Plan Review RMA Part 2	Medium Application of provisions that manage adverse effects and potential risks consistently, based on the application of realistic thresholds, within the General Rural Zone represents a shift in approach.
Who and how many will be affected?	Small number, namely parties involved in quarrying and mining activities in the district	Low The application of consistent and realistic thresholds that reflect the nature of mining and quarrying activities will provide clarity for operators.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 Te Whakatau Kaupapa Kati Huirapa IMP	Medium Application of provisions that manage adverse effects and potential risks consistently, based on the application of realistic thresholds, will provide clarity. This includes in relation to any potential risks to matters of interest to iwi / Māori.

Issue MQ2: Thresholds		
When will affects occur?	District Plan Review	Medium The identification of consistent thresholds will ensure that those activities that will have a minor effect, do not need to seek a consent, while the effects arising from all other mining and quarrying activities are managed by way of resource consent conditions.
Geographic scale of impacts / issue	General Rural Zone	Low The application of General Rural Zone mining and quarrying thresholds and provisions is generally consistent with the coverage of the operative Plan.
Type of effect(s)	District Plan Review	Medium The nature of effects associated with mining and quarrying activities are well understood. Application of provisions that manage adverse effects and potential risks consistently, based on the application of realistic thresholds, will provide clarity.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review RMA Part 2	Low The effects of mining and quarrying activities are well understood, as are the approaches to managing potential adverse effects and risks through planning provisions.
Overall Assessment of Scale and Significance		Medium

Issue MQ3: Plan Provision Clarity Issue MQ4: Providing for Mining and Quarrying		
Reasons for change in policy	District Plan Review RMA Part 2 RPS (5.3.2)	Medium Mining and quarrying have a functional need to locate where the resource is located. In this context, it is important that a clear and consistent planning framework is provided in the Plan including ensuring that potential adverse effects and risks associated with these activities are managed.
Relevant Statutory Considerations / Drivers	District Plan Review RMA Part 2	Medium

Issue MQ3: Plan Provision Clarity Issue MQ4: Providing for Mining and Quarrying		
	RPS (5.3.2)	Adverse effects of mining and quarrying activities in the district need to be consistently identified and managed to ensure that adverse effects are avoided, remedied or mitigated.
Degree of shift from status quo required	District Plan Review RMA Part 2 RPS (5.3.2)	Medium Application of clear provisions that provide for mining and quarrying activities and that also manage adverse effects and potential risks consistently within the General Rural Zone represents a shift in approach.
Who and how many will be affected?	Small number, predominantly parties involved in quarrying and mining activities in the district	Low The application of consistent Plan provisions that reflect the nature of mining and quarrying activities will provide clarity for operators.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 Te Whakatau Kaupapa Kati Huirapa IMP	Medium Application of provisions that manage adverse effects and potential risks consistently will provide clarity. This includes in relation to any potential risks to matters of interest to iwi / Māori.
When will affects occur?	District Plan Review	Medium The identification of consistent mining and quarrying activity Plan provisions will ensure that the effects arising from these activities are managed by way of resource consent conditions (as effectively occurs under the operative Plan).
Geographic scale of impacts / issue	General Rural Zone	Low The application of consistent General Rural Zone mining and quarrying thresholds and provisions is generally consistent with the coverage of the operative Plan.
Type of effect(s)	District Plan Review	Medium The nature of effects associated with mining and quarrying activities are well understood. Application of provisions that provide for mining and quarrying activities and manage adverse effects and

Issue MQ3: Plan Provision Clarity		
Issue MQ4: Providing for Mining and Quarrying		
		potential risks consistently will provide clarity.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review RMA Part 2	Low The effects of mining and quarrying activities are well understood, as are the approaches to providing for these activities and managing potential adverse effects and risks through planning provisions.
Overall Assessment of Scale and Significance		Medium

Issue MQ5: Proximity to Sensitive Activities		
Reasons for change in policy	District Plan Review RMA Part 2 NPSET Regional policy and plans Te Whakatau Kaupapa	Medium Mining and quarrying have a functional need to locate where the resource is located. In this context, it is important that the Plan clearly and consistently manages the potential adverse effects and risks on and from sensitive activities.
Relevant Statutory Considerations / Drivers	District Plan Review RMA Part 2 NPSET Regional policy and plans	Medium Adverse effects of mining and quarrying activities in the district need to be consistently managed to ensure that potential adverse effects and risks, including on and from sensitive activities, are avoided, remedied, or mitigated.
Degree of shift from status quo required	District Plan Review RMA Part 2 NPSET Regional policy and plans	Medium Application of clear provisions that provide for mining and quarrying activities and that also manage adverse effects on and from sensitive activities consistently within the General Rural Zone represents a shift in approach.
Who and how many will be affected?	Wide range of parties affected	Medium The application of consistent Plan provisions that manage the adverse effects and risks of mining and quarrying activities, including to and from sensitive activities, will provide clarity for operators and parties located near such facilities.
Degree of impact on, or interest from iwi / Māori	RMA Part 2 Regional policy and plans	Medium

Issue MQ5: Proximity to Sensitive Activities		
	NPSET Te Whakatau Kaupapa Kati Huirapa IMP	Application of consistent provisions that manage adverse effects and potential risks, including on and from sensitive activities, will provide clarity. This includes in relation to any potential risks to matters of interest to iwi / Māori.
When will affects occur?	District Plan Review	Medium Plan provisions for mining and quarrying activities that identify the means of avoiding adverse effects on and from sensitive activities will clearly identify the planning framework that applies. This contrasts with the operative Plan where consideration of this issue is solely by way of a resource consent process.
Geographic scale of impacts / issue	General Rural Zone	Low The application of consistent General Rural Zone mining and quarrying provisions is generally consistent with the coverage of the operative Plan.
Type of effect(s)	District Plan Review	Medium The nature of effects associated with mining and quarrying activities, including adverse effects and risks on and from sensitive activities, are well understood. Application of provisions that provide for mining and quarrying activities consistently will provide clarity.
Degree of policy risk, implementation risk, or uncertainty	District Plan Review RMA Part 2 Regional policy and plans	Low The effects of mining and quarrying activities are well understood, as are the approaches to managing potential adverse effects and risks through planning provisions, including on and from sensitive activities.
Overall Assessment of Scale and Significance		Medium

Issue MQ6: Duplication with Regional Rules		
Reasons for change in policy	District Plan Review Regional plans	Low The operative Plan permits mining and quarrying activities in waterbodies where the activity is authorised by the regional council.

Issue MQ6: Duplication with Regional Rules		
		Other regional plan rules will also apply to these activities, and it may not be necessary to include similar controls within the Plan.
Relevant Statutory Considerations / Drivers	District Plan Review Regional plans	Low The Plan must not be inconsistent with regional plans. While land use rules for mining and quarrying activities should be included in the Plan, to ensure efficient resource management approaches in the district it is considered that unnecessary duplication with regional plan rules should be avoided.
Degree of shift from status quo required	District Plan Review Regional plans	Low The Plan must not be inconsistent with regional plans. The operative Plan permits mining and quarrying activities in waterbodies where the activity is authorised by the regional council.
Who and how many will be affected?	Small number, predominantly parties involved in quarrying and mining activities in the district	Low The Plan must not be inconsistent with regional plans. Ensuring that the Plan does not unnecessarily duplicate regional rules avoids unnecessary regulation and potential confusion.
Degree of impact on, or interest from iwi / Māori	District Plan Review Regional plans	Low The Plan must not be inconsistent with regional plans. Regional plans contain rules that regulate mining and quarrying activities in relation to the district's resources managed by CRC.
When will affects occur?	District Plan Review	Low The operative Plan permits mining and quarrying activities in waterbodies where the activity is authorised by the regional council. Other regional plan rules will also apply to these activities, and it may not be necessary to include similar controls within the Plan.
Geographic scale of impacts / issue	General Rural Zone	Low The Plan must not be inconsistent with regional plan rules. Operative

Issue MQ6: Duplication with Regional Rules		
		<p>regional rules already apply to mining and quarrying activities.</p> <p>Ensuring that the Plan in the General Rural Zone does not unnecessarily duplicate regional rules avoids unnecessary regulation and potential confusion.</p>
Type of effect(s)	District Plan Review	<p>Low</p> <p>The Plan must not be inconsistent with regional plan rules. Operative regional rules already apply to mining and quarrying activities.</p> <p>Ensuring that the Plan in the General Rural Zone does not unnecessarily duplicate regional rules avoids unnecessary regulation and potential confusion.</p>
Degree of policy risk, implementation risk, or uncertainty	District Plan Review Regional plans	<p>Low</p> <p>The Plan must not be inconsistent with regional plan rules. Operative regional rules already apply to mining and quarrying activities.</p>
Overall Assessment of Scale and Significance		Low

Summary

Overall, the scale and significance of implementing Plan provisions in the General Rural Zone for mining and quarrying activities to address the above identified issues is **medium**. Mining and quarrying activities have a functional need to locate where the resource is located, which, given the nature of such operations, will be within the district's General Rural Zone. Therefore, mining and quarry activity rules have the potential to predominantly affect parties involved in these activities, as well as other parties in the broader neighbourhood. While the land use effects associated with mining and quarrying activities are well understood, it is important that adverse effects and potential risks are appropriately managed. Additional consenting requirements for earthworks, mining and quarrying activities, including potential duplication of regional consent matters, can impose additional costs, but the costs to the environment could also be high if these activities are not appropriately managed.

2.2 Quantification of Costs and Benefits

Section 32(2)(b) requires that if practicable the benefits and costs of a proposal are quantified.

Given the assessment of the scale and significance of the issues in Section 2.1 above, it is considered that quantifying costs and benefits would add significant time and cost to the s32 evaluation processes, therefore exact quantification of the benefits and costs in this report was not considered necessary, beneficial, or practicable. Rather, this report identifies below where there may be additional cost(s).

2.3 Choice of Evaluation Method(s)

Simple multi criteria analysis (MCA) method has been chosen to evaluate the options for both the Earthworks and Quarrying and Mining. An MCA will enable the costs and benefits of each option to be ranked against a set of criteria as either High, Medium, or Low with an associated explanation. This method will also enable both efficiency and effectiveness of the option to be assessed and for judgement to be made options as to their appropriateness.

2.4 Proposed objectives

Proposed objectives for earthworks, mining and quarrying consist of Objectives EW-01 and GRUZ-01 and O5. The earthworks' objective is to be contained within the district-wide earthworks chapter of the Plan, whereas the mining and quarrying objective is to be contained in the General Rural Zone chapter of the Plan. The relevant Proposed objectives are: Replace 'their' with 'its' and change 'of the district land resource to 'of land'

EW-01	Earthworks activity
Earthworks facilitate subdivision, and the use and development of the District's land resource, while ensuring that its adverse effects on the surrounding environment are avoided or mitigated.	
GRUZ-01	Purpose of the General rural zone
The General rural zone predominantly provides for primary production, including intensive primary production, as well as a limited range of activities that support primary production, including associated rural industry, and other activities that require a rural location.	
GRUZ-05	Mining and quarrying
Mining and quarrying occurs in the General rural zone where the resource exists and where compatible with the environment and sensitive activities.	

3 Evaluation of Objectives

District-wide Earthworks

Objective EW-01

Category	Criteria	Comments
Relevance	Directed to addressing a resource management issue	Earthworks are a relevant resource management issue which have the potential to create adverse effects. Achieves
	Focused on achieving the purpose of the Act	The objective is focussed on sustainably managing earthworks promoting in particularly their contribution towards people's economic well-being while ensuring their adverse effects on the surrounding environment are contained. Achieves

	Assists in carrying out statutory functions	The objective would facilitate the control of any actual or potential effects of the subdivision, use and development, of land. Achieves
	Within scope of higher-level documents	The objective aligns with the objectives of various National Policy Statements, such as the NPS-ET and NPS-FM, National Environmental Standards i.e., NES-ETA, the Canterbury Regional Policy Statement and Regional Plans. Achieves
Feasibility	Acceptable level of uncertainty and risk	There is sufficient information available and a good understanding of the nature of earthworks activities and the associated effects on the environment in the context of the differing locations where earthworks can take place. Therefore, the objective is of low risk. Neutral
	Realistically able to be achieved within council's powers, skills, and resources	Addressing earthworks in the District Plan falls within the Council powers under the RMA, although it is acknowledged there is some, albeit minor, crossover with the functions of Environment Canterbury. There is sufficient skills and resourcing within Council as earthworks are already being addressed in the Operative Plan. Neutral
Acceptability	Consistent with identified iwi/Māori and community outcomes	The objective is consistent with community feedback in being enabling, but ensuring adverse effects are addressed. Achieves
	Will not result in unjustifiably high costs on the community or parts of the community	The objective enables a balanced approach which facilitates earthworks to be permitted up to or within certain levels but requires consents beyond those levels or within specified area. Achieves

Mining and quarrying
Objective GRUZ-01 and GRUZ-05

Category	Criteria	Comments
Relevance	Directed to addressing a resource management issue	Quarrying and Mining are a relevant resource management issue which have the potential to create adverse effects. Achieves
	Focused on achieving the purpose of the Act	The objectives are focussed on sustainably managing the activities of quarrying and mining and limiting their location to the rural area where their adverse effects are more appropriately managed through a consent pathway. Achieves
	Assists a council to carry out its statutory functions	The objectives would facilitate the control of any actual or potential effects of quarrying and mining. Achieves
	Within scope of higher-level documents	The objectives align with the Canterbury Regional Policy Statement. Neutral
Feasibility	Acceptable level of uncertainty and risk	There is sufficient information available, and a good understanding of the nature and effects associated with quarrying and mining activity. Therefore, the provisions provide clear guidance on the consenting framework and therefore the level of uncertainty and risk is low. Neutral
	Realistically able to be achieved within council's powers, skills, and resources	Addressing quarrying and mining in the District Plan falls within the Council powers under the RMA. There is sufficient skills and resourcing within Council as quarries have been consented in the past. Neutral
Acceptability	Consistent with identified iwi/Māori and community outcomes	Community feedback around quarrying and mining was mixed with some considering the current rules were sufficient, while others wanted to ensure that mining and quarrying has further strict conditions to protect biodiversity.

Category	Criteria	Comments
		The provisions provide a balance in enabling quarrying and mining activities to be consented in appropriate locations but ensuring adverse effects are addressed. Achieves
	Will not result in unjustifiably high costs on the community or parts of the community	There will be costs associated with a consenting process for those seeking to expand or establish quarries or mines, however those costs will not generally be borne by the wider community. Neutral

4 Identification of Options

Earthworks

Option 1: Status Quo

No specific chapter on earthworks with reliance on general amenity objectives and policies and a limited regime of rules of targeting specific issues i.e. setback from wetlands or altitude; or specific zones i.e. Rural 4A zone and Residential 1 zone at Broughs Gully.

Option 2: Earthworks specific chapter in District Plan

Specific objectives and policies specific to management of effects generated by earthworks, with permitted activity rules for small-scale activities or activities that are generally appropriate (via exemptions), existing or anticipated, subject to general effects standards. Restricted Discretionary activity status would apply to earthworks in specific locations i.e. heritage settings, identified flood prone areas and where not meeting effects standards, with a range of assessment matters.

Option 2a: Earthworks specific chapter in District Plan for general earthworks but with particular chapters containing their own earthworks provisions

As above but with the specific earthworks provisions in the Natural Hazards, Coastal Environment, Natural Features and Landscapes and Sites and areas of significance to Māori Chapters due to the sensitive natural of these areas.

Option 3: Methods outside the District Plan

No rules for earthworks in District Plan with reliance on engineering standards, Building Act, and non-regulatory methods (such as design guidelines, education, information, advice) to manage adverse effects of earthworks.

Mining and Quarrying

Option 1: Status Quo

No specific zoning for mining and quarrying with a reliance on general amenity objectives and policies, except in areas identified in the Natural Features and Landscapes Chapter and specific standards or activity status in General Rural zone.

Option 2: Mining and Quarrying Special Purpose Zone

Create a specific zone encompassing existing mining and quarrying areas and identifying potential new areas. Would include zone specific objectives, policies and associated rules and would need to meet the criteria for such a zone under the National Planning Standards (NPS).

Option 3: Mining and Quarrying Specific Provisions within the General Rural zone

Provide for mining and quarrying within the General Rural Zone as either a restricted discretionary activity (existing operations) or discretionary activity (new operations) with an objective and policy framework providing guidance. In all other zones including the overlays for Natural Features and Landscapes, Sites and areas of significance to Māori and Coastal Environment the activities will be identified as, or defaults to, non-complying activities.

5 Evaluation of Options

5.1 Evaluation table

Earthworks

OPTION 1 <i>Status-quo</i>			
Benefits			
Environmental	Economic	Social	Cultural
Provides a framework for a limited degree of earthworks activities within some zones - Low	<p>Fewer resource consent applications and associated time, cost, and uncertainty - Medium</p> <p>Plan users and landowners are familiar with current provisions, resulting in reduced costs in understanding and complying with the relevant earthworks provisions - Medium</p>	Plan users and landowners are familiar with current provisions – Low	No benefits identified.
Costs			
Environmental	Economic	Social	Cultural
<p>Limited policy direction on the types of earthworks and associated effects that should be managed - Medium</p> <p>There are potential adverse impacts on the environment from uncontrolled earthworks such as dust, heavy traffic movements, vibration, noise, erosion, and</p>	Economic costs associated with remediation if earthworks create instability or flood hazards that damages property - High	Potential loss of district wide amenity due to uncontrolled earthworks - Medium	There is an absence of provisions which seek to protect the cultural values, meaning cultural sites could be being impacted / affected - High

<p>diversion of natural drainage channels – High</p> <p>Lacks consistency, detail, direction, and certainty on what is or is not appropriate, and leads to inconsistent decision-making and varied outcome – Low</p> <p>Greater potential for a reduction in visual amenity and quality of the environment which will be borne by the community – Medium</p> <p>Limited discouragement for earthworks in sensitive locations such flood prone areas and sites or areas of significance to Māori - High</p> <p>Lack of rules for earthworks in proximity to boundaries could lead to issues around land stability and diversion of surface water or groundwater flows – High</p> <p>Lack of rules in relation to thresholds (volume/area/height/slope) as performance standards – Medium</p>			
Efficiency	A lack of direction in the Plan leads to inconsistent decision making and lack of control over certain activities.		
Effectiveness	The current provisions are not considered the most appropriate way in which to achieve the objective because they are ambiguous and inconsistent within the zone framework. In this context, the effects of earthworks activities are not always appropriately managed.		
Strategic Direction(s)	While they do provide for business development, the current provisions do not give effect to all the relevant Strategic Objectives, particularly the current provisions do not ensure that the potential adverse effects associated with earthworks are reduced and managed in a manner that recognises the character and qualities of the area.		
Overall Appropriateness of Option 1	Not considered appropriate.		

OPTION 2*Earthworks specific chapter in District Plan*

Benefits			
Environmental	Economic	Social	Cultural
<p>Maintains a level of amenity that is appropriate to the environment where the activity is to take place – High</p> <p>Where resource consents are required, ensures that the potential adverse effects are considered, namely potential effects on amenity, cultural or natural values or the exacerbation of natural hazards risks – High</p> <p>Ensures that the adverse effects of earthworks are appropriately managed by exempting relatively small-scale earthworks or earthworks managed by other processes to occur without the need for resource consents – Medium</p> <p>Ensures that the adverse effects of subdivision related earthworks are managed and mitigated at an appropriate level – Medium</p> <p>Protect infrastructure from earthworks occurring in near proximity - Medium</p>	<p>Facilitates subdivision and land use development by recognising that earthworks activities are a component of these activities, but at the same time not putting undue restraint on earthworks activities – High</p> <p>Avoids the costs associated with seeking resource consents for small-scale earthworks where the potential adverse effects will be minor, or earthworks managed by other processes such as building consent - Medium</p>	<p>Addresses the ambiguities and inconsistency associated with implementing the operative provisions - Low</p> <p>Ensures that the scale and nature of earthworks reflect the nature of the environment within which they are occurring, including by providing lower permitted activity thresholds in urban or sensitive areas compared to those provided for in rural areas – Medium</p> <p>Facilitates development within the district by providing a pathway for subdivision earthworks and thus subdivision itself – Medium</p> <p>Provides for all the earthworks provisions in one place within the District Plan - Low</p>	<p>Potential effects of earthworks on sites of cultural value will be addressed by the earthworks provisions, including the provisions of specific culturally focussed policy and restricted discretionary activity status – High</p> <p>Note on archaeological protocol included in the earthworks chapter - Medium</p>
Costs			
Environmental	Economic	Social	Cultural
Potential for new gaps within the planning	The costs associated with amending the	Potential community concern	Irrespective of the recognition of

<p>provisions which may result in unanticipated adverse effects on the environment - Low</p>	<p>earthworks provisions of the proposed Plan in comparison to retaining the existing operative provisions – Medium</p> <p>Costs associated with increased consenting requirements - Medium</p>	<p>about the permissive approach to providing for earthworks activities - Low</p>	<p>effects on sites of cultural value within proposed provisions, there may be cultural concern about the wider permissive approach to providing for earthworks activities - Low</p>
<p>Efficiency</p>	<p>The environmental, economic, social, and cultural benefits significantly outweigh the costs and are greater than those associated with retaining the status quo.</p> <p>There are efficiencies for plan users in being able to refer to earthworks in one chapter rather than spread throughout the Plan, however where one-off earthworks provisions are necessary for specific overlays it can result in a cluttered and cumbersome chapter and can create integration issues between provisions.</p> <p>While the NPS mandates that if provisions for managing earthworks are addressed, they must be in an Earthworks chapter, it also mandates that if overlays are used, their provisions must be in the relevant District-wide matters chapters and sections.</p>		
<p>Effectiveness</p>	<p>This option is an effective means of achieving the objective as together they will:</p> <ul style="list-style-type: none"> • give effect to the higher order documents, particularly the RPS, NESCS and NESETA, NESTF and NESPF. • enable the Council to fulfil its statutory obligations, including section 31 of the RMA and gives effect to the relevant Part 2 Matters, namely sections 6(a), 6(b), 6(c), 6(e), 6(h), 7(a), 7(aa), 7(b), 7(c), 7(d), 7(f) and 7(g). • facilitate earthworks that support the district’s land use development activities while ensuring that those adverse effects are managed appropriately through applicable standards and assessment of potential effects as part of resource consent process where the development standards are not met. • ensure that the potential effects of earthworks on cultural values are appropriately recognised and managed. • exempt relatively small-scale earthworks or earthworks managed by other processes, thus ensuring that undue constraints are not placed on district land use development activities where the potential effects of those activities are minor and/or controlled by other mechanisms. 		
<p>Strategic Direction(s)</p>	<p>This option is considered to achieve the relevant Strategic Directions.</p>		
<p>Overall Appropriateness of Option 2</p>	<p>While this is one of the options mandated by the NPS and it both enables earthworks to be addressed where necessary but avoids the consenting process for small-scale earthworks where the potential adverse effects will be minor, or earthworks managed by other processes such as building consent for reasons of efficiency linked particular to plan integration it is not considered to be the preferred option.</p>		

OPTION 2a

Earthworks specific chapter in District Plan for general earthworks but with chapters containing their own earthworks provisions

Benefits Environmental	Economic	Social	Cultural
<p>Maintains a level of amenity that is appropriate to the environment where the activity is to take place – High</p> <p>Where resource consents are required, ensures that the potential adverse effects are considered, namely potential effects on amenity, cultural or natural values or the exacerbation of natural hazards risks, noting that some of these would be addressed in the specific chapters – High</p> <p>Ensures that the adverse effects of earthworks are appropriately managed by exempting relatively small-scale earthworks or earthworks managed by other processes to occur without the need for resource consents – Medium</p> <p>Ensures that the adverse effects of subdivision related earthworks are managed and mitigated at an appropriate level – Medium</p> <p>Protects infrastructure from earthworks occurring</p>	<p>Facilitates subdivision and land use development by recognising that earthworks activities are a component of these activities, but at the same time not putting undue restraint on earthworks activities – High</p> <p>Avoids the costs associated with seeking resource consents for small-scale earthworks where the potential adverse effects will be minor, or earthworks managed by other processes such as building consent - Medium</p>	<p>Addresses the ambiguities and inconsistency associated with implementing the operative provisions - Low</p> <p>Ensures that the scale and nature of earthworks reflect the nature of the environment within which they are occurring, including by providing lower permitted activity thresholds in urban or sensitive areas compared to those provided for in rural areas – Medium</p> <p>Facilitates development within the district by providing a pathway for subdivision earthworks and thus subdivision itself – Medium</p> <p>Provides for most earthworks' provisions in one place within the District Plan, but separates those which relate to specific and generally sensitive area - Low</p>	<p>Potential effects of earthworks on sites of cultural value will be addressed by the earthworks provisions, including the provisions of specific culturally focussed policy and restricted discretionary activity status – High</p> <p>Note on archaeological protocol included in the earthworks chapter - Medium</p>

in near proximity - Medium			
Costs Environmental	Economic	Social	Cultural
Potential for new gaps within the planning provisions which may result in unanticipated adverse effects on the environment - Low	The costs associated with amending the earthworks provisions of the proposed Plan in comparison to retaining the existing operative provisions – Medium Costs associated with increased consenting requirements - Medium	Potential community concern about the permissive approach to providing for earthworks activities – Low Some specific provisions in separate chapters - Low	Irrespective of the recognition of effects on sites of cultural value within proposed provisions, there may be cultural concern about the wider permissive approach to providing for earthworks activities - Low
Efficiency	<p>The environmental, economic, social, and cultural benefits significantly outweigh the costs and are greater than those associated with retaining the status quo.</p> <p>There are clear efficiencies for plan users in being able to refer to earthworks in one chapter however there is also needed to ensure that provisions are integrated following their path is straightforward i.e., objectives, policies and rules are together rather than spread across different chapters.</p> <p>While the NPS mandates that if provisions for managing earthworks are addressed, they must be in an Earthworks chapter, it also mandates that if overlays are used, their provisions must be in the relevant District-wide matters chapters and sections.</p>		
Effectiveness	<p>This option is the most effective means of achieving the objective as together they will:</p> <ul style="list-style-type: none"> • give effect to the higher order documents, particularly the RPS, NESCS and NESETA, NESTF and NESPF. • enable the Council to fulfil its statutory obligations, including section 31 of the RMA and gives effect to the relevant Part 2 Matters, namely sections 6(a), 6(b), 6(c), 6(e), 6(h), 7(a), 7(aa), 7(b), 7(c), 7(d), 7(f) and 7(g). • facilitate earthworks that support the district’s land use development activities while ensuring that those adverse effects are managed appropriately through applicable standards and assessment of potential effects as part of resource consent process where the development standards are not met. • ensure that the potential effects of earthworks on cultural values are appropriately recognised and managed. • exempt relatively small-scale earthworks or earthworks managed by other processes, thus ensuring that undue constraints are not placed on district land use development activities where the potential effects of those activities are minor and/or controlled by other mechanisms. • enable the Council to effectively administer its District Plan and to monitor the outcomes of the proposed provisions in a clear and consistent manner. 		

Strategic Direction(s)	This option is considered to achieve the relevant Strategic Directions.
Overall Appropriateness of Option 2a	Considered to be the preferred option (and is mandated by the NPS) as it provides for integration of provisions and enables earthworks to be addresses where necessary but avoids the consenting process for small-scale earthworks where the potential adverse effects will be minor, or earthworks managed by other processes such as building consent.

OPTION 3 <i>Methods outside the District Plan</i>			
Benefits Environmental	Economic	Social	Cultural
Enables more innovative approaches and environmental solutions to earthworks - Medium	<p>Increased economic and development opportunities and flexibility for landowners/industry/developers as they are not subject to certain rules - Medium</p> <p>Less resource consent applications and associated time, cost, and uncertainty for applicants (i.e., less cost and time for Council, ratepayers or landowners) - Medium</p>	<p>Public awareness of 'best practice' earthworks and associated outcomes is improved through education programmes – Low</p> <p>Some earthworks normally exempted subject to approved building consent - Medium</p>	None identified.
Costs Environmental	Economic	Social	Cultural
<p>Without regulatory controls the onus is on private landowners to manage the adverse effects of earthworks. In turn, there is less certainty that the outcomes sought for earthworks would be achieved – Medium/High</p> <p>Potential for a reduction in visual amenity, attractiveness and quality of the environment, and increased risks of land stability, flooding and sedimentation issues - High</p>	<p>Potential costs for council in providing technical advice, support and information, and other incentives to encourage landowners to undertake sustainable management methods for earthworks – Low</p> <p>Increased costs to Council through monitoring and potentially enforcement – Medium</p> <p>Economic costs associated with remediation if uncontrolled earthworks create instability or flood hazards that damages property - High</p>	<p>Potential loss of district wide amenity due to uncontrolled earthworks - Medium</p>	<p>Absence of provisions which seek to protect the cultural values - High</p>

Efficiency	While no rules or performance standards may be efficient for the development industry it would allow a level of unregulated earthworks to occur which could result in a wide range of adverse effects including visual amenity, land instability and flooding if engineering standards and non-regulatory methods weren't adhered to.
Effectiveness	This approach has an element of certainty and has the potential to result in significant adverse effects on visual amenity and quality of the environment. No policies, rules or standards and reliance on other mechanisms and non-regulatory methods is not considered effective to achieve the Earthworks objective.
Strategic Direction(s)	While this option does provide for business development, it has the element of uncertainty associated with such an approach and could therefore not guarantee to give effect to all the relevant Strategic Objectives, particularly in ensuring that the potential for adverse effects associated with earthworks are reduced and managed in a manner that recognises the character and qualities of the area.
Overall Appropriateness of Option 3	While this approach has merits and indeed could appropriately address those earthworks which coincide with the need for a building consent it is not overall considered the most appropriate due to the level of uncertainty and monitoring it could create.

Mining and Quarrying

OPTION 1 <i>Status-quo</i>			
Benefits			
Environmental	Economic	Social	Cultural
Provides a resource management framework for quarrying and mining activities – Low	Provides a resource management framework for quarrying and mining activities – Low	Plan users and landowners are familiar with current provisions - Low	None identified.
Provision contains requirements in relation to setbacks from sensitive areas and a low volume threshold – Medium	Provision contains requirements in relation to setbacks from sensitive areas and a low volume threshold – Medium		
Protection provided in terms of a discretionary activity above the volume threshold - Medium	Protection provided in terms of a discretionary activity above the volume threshold - Medium		
Costs			
Environmental	Economic	Social	Cultural

<p>Limited guidance in terms of the policy framework - High</p> <p>No specific standards in terms of proximity to sensitive activities or areas nor specific policy direction in terms of location, expansion, new activity or rehabilitation - High</p>	<p>Uncertainty in terms of being able to obtain consent due to lack of guidance - Medium</p>	<p>Community concern about the need for stricter conditions to protect biodiversity - Medium</p>	<p>Community concern about the need for stricter conditions to protect biodiversity - Medium</p>
<p>Efficiency</p>	<p>The existing provisions are somewhat efficient however there is little in the way guidance as to matters to be addressed in relation to expanding or establishing a quarry or mine or any provisions around rehabilitation or separation from sensitive activities.</p>		
<p>Effectiveness</p>	<p>The existing provisions are somewhat efficient however there is little in the way guidance as to matters to be addressed in relation to expanding or establishing a quarry or mine or any provisions around rehabilitation or separation from sensitive activities.</p>		
<p>Strategic Direction(s)</p>	<p>The current provisions do not entirely give effect to the Strategic Objectives, particularly in relation to the need to recognise and provide for business activities which play a role in facilitating land use development in the district and ensuring that potential adverse effects are reduced and managed in a manner that recognises the character and qualities of the area.</p>		
<p>Overall Appropriateness of Option 1</p>	<p>While the status quo has been somewhat effective it is not overall considered the most appropriate due to the lack of guidance and specific provisions addressing key environmental issues i.e., sensitive activities and, stemming from that, reverse sensitivity.</p>		

OPTION 2

Mining and Quarrying Special Purpose Zone

Benefits Environmental	Economic	Social	Cultural
<p>Provides a specific resource management framework and establishes specific controls that are targeted directly at the effects associated with mining or quarrying – High</p> <p>Can ensure that any effects are able to be primarily internalised within the zone – High</p>	<p>Provides certainty for landowners with existing quarrying and potentially a financial windfall for those whose land was zoned for the purpose - Medium</p> <p>Limits consenting costs - Medium</p>	<p>Provides the community with greater certainty by identifying just where mining and quarrying will take place and what the requirements will be – Medium</p>	<p>Can ensure that sites of cultural values are avoided in the first instance and can ensure protocols are put in place in terms of accidental discoveries - High</p>

Can directly address rehabilitation – Medium			
Can better legitimise activities and address effects where the consents are limit and/or vague - Medium			
Costs			
Environmental	Economic	Social	Cultural
Potential for cumulative effects if quarry locations are clustered – Low Likely to necessitate a strict policy regime outside the zone which will make it difficult for new quarries or mining outside the zone - Medium	Requires extensive upfront reporting and assessment to identify the appropriate additional locations for any mining or quarrying, a cost that would be borne largely by the Council - Low Limits areas available and in terms of zoning new areas is akin to picking winners – High Could lead to land banking of quarry land and therefore increasing the costs of material – High	Potential cost for those located in proximity to any newly zoned area in submitting on the District Plan - Low	None identified
Efficiency	Zoning is an efficient approach in terms for addressing existing sites and establishing bottom lines and it provides a framework for future changes rather than pursuing the resource consent process. However, in terms of identifying sites for rezoning upfront there are potential inefficiencies associated with assessments, landowner intensions and the potential for increased costs of material if zoned land is not subsequently developed.		
Effectiveness	A zoning regime is effective up to a point i.e., existing sites, however it lacks a degree of flexibility and can come with a high level of initial costs and inefficiencies in terms of a District Plan framework i.e., effectively zoning for one specific activity. There are also potential inefficiencies in terms of land allocation to the zone and it take up for quarrying and mining.		
Strategic Direction(s)	This option would generally support business development and would give effect to all the relevant Strategic Objectives, particularly in ensuring that the potential for adverse effects associated with quarrying and		

	mining are reduced and managed in a manner that recognises the character and qualities of the area.
Overall Appropriateness of Option 2	<p>Under the NPS Special Purpose zones must only be created when the proposed land use activities or anticipated outcomes of the additional zone meet all the following criteria:</p> <ul style="list-style-type: none"> a. is significant to the district, region, or country b. is impractical to be managed through another zone c. is impractical to be managed through a combination of spatial layers. <p>In this regard quarrying is significant to the district, with mining less so, however both can be managed through another zone as specifically identified activities. Therefore, a zoning approach is considered inappropriate under the NPS.</p> <p>Further, while a zoning approach can be an appropriate option for existing sites, particularly where current consents maybe limited or vague, there are potential inefficiencies and costs associated with identifying new sites.</p>

OPTION 3

Mining and Quarrying Specific Provisions within the General Rural zone

Benefits Environmental	Economic	Social	Cultural
<p>Provides a specific resource management framework with guidelines and establishes specific controls that are targeted directly at the effects associated with mining or quarrying – High</p> <p>Provides a framework for rehabilitation – Medium</p> <p>Enables the imposition of specific and targeted conditions to address adverse effects through a resource consent process – High</p> <p>Provides for a non-complying status in all other zones - Low</p>	<p>Costs associated with a resource consent process are likely to be less than a plan change process – Medium</p> <p>Enables applications to come forward on an individual basis and prevents the potential for land banking – Medium</p>	<p>Provides for future public input if determined that effects are minor or more than more – Medium</p> <p>Limits such activities to the Rural General zone - Low</p>	<p>Can ensure that sites of cultural values are considered and can ensure protocols are put in place in terms of accidental discoveries - High</p>
Costs Environmental	Economic	Social	Cultural
None identified	Costs associated with a resource consent process – Medium	Does not address the situation where existing consents are	None identified

	Separation distances established from sensitive activities within which activity won't be able to be undertaken - Low	limit and/or vague or do not exist - Low	
Efficiency	More efficient in terms of District Plan provisions than having a spot zone type of arrangement and associated policy framework. It also provides flexibility through a policy framework and resource consent process without the Council having to undertake assessment of potential quarrying locations for zoning proposes.		
Effectiveness	A consenting approach is effective as it enables proposals to come forward rather than 'picking winners. This approach is also more effective than the status quo as it provides clear guidance on what is to be addressed in any application and contains associated controls. It also addresses rehabilitation of a site.		
Strategic Direction(s)	This option would generally support business development (SD-06) and would give effect to all the relevant Strategic Objectives, particularly in ensuring that the potential for adverse effects associated with quarrying and mining are reduced and managed (SD-01, SD-03 and SD-08) in a manner that recognises the character and qualities of the area (SD-09).		
Overall Appropriateness of Option 3	Is the most appropriate option and it provides a high level of flexibility in terms of locations whilst still ensuring that potential adverse effects can be effectively addressed.		

5.2 Risk of Acting or Not Acting

Earthworks

The risk of not acting and retaining the status quo is that the resource management issues that have been identified during will continue. Retaining the status quo would mean that inconsistencies in the provisions across different zones would be retained which do not always reflect the purpose of earthworks nor their location and do not always ensure that adverse effects are being appropriately managed.

Council has sufficient information available to determine the proposed chapter and other related provisions associated with Option 2a, as they have a good understanding of the nature of earthworks activities and the associated effects on the environment in the context of the differing locations where earthworks can take place. Therefore, there is a low risk of acting in the manner proposed.

The risk of acting on the non-regulatory approach means that Council may not be carrying out its duty/requirements under the RMA. This approach may result in adverse effects on the environment and may not maintain and enhance amenity values or the quality of the environment). It is considered that there is sufficient information not to act on these provisions.

Quarrying

The risk of not acting and retaining the status quo is that there will continue to be limited guidance for, and controls over, quarrying and mining activity through the consenting process.

The risk of acting on the zoning option is that it does not meet the mandatory criteria for a Special Purpose zone under the NPS and furthermore the Council does not have sufficient information to act on zoning land other than existing sites. This could also likely result in insufficient land being zoned for the future and difficulties in bringing such land forward under what would likely be a strict policy regime outside of the zoned land.

Council has sufficient information available to determine that the specific provisions approach within the General Rural zone and related provisions associated with Option 3, is appropriate and therefore, there is a low risk of acting in the manner proposed.

6 Preferred Option

Earthworks

Option 2a is the preferred option. It is considered most likely to address the key resource management issues identified above and give effect to the relevant statutory planning documents. This option provides both a district wide chapter for general earthworks activities and specific earthworks activities within chapters associated with overlays. The general aim is to ensure that earthworks, given their role in land development activities, are generally recognised, and provided for, but are restricted or subject to assessment where their effects are on sensitive environments or where threshold are met. In addition, the establishment of the Earthworks (District Wide) Chapter with specific provisions within Chapters encompassing overlays remains in accordance with the requirements of the NPS, provides integration, clarity, and consistency in terms of approach. It ensures that the policy direction for general earthworks management is clearly articulated in one chapter, and that the direction for earthworks in specific sensitive locations such as natural hazard areas, sites, and areas of significance to Māori, the coastal environment and sites where natural features and landscapes have been identified is contained in one location.

The current provisions are not considered the most appropriate way in which to achieve the objective because they are inconsistent across the zone framework of the Plan, do not seek to protect heritage and cultural values and do not fully address the adverse effects associated with earthworks activities.

While they do provide for business development (SD-06), the current provisions do not give effect to many other Strategic Objectives, in particular they do not ensure that the potential adverse effects associated with earthworks are reduced and managed (SD-01, SD-03 and SD-08) in a manner that recognises the character and qualities of the area (SD-09).

The review of available options has concluded that the preferred approach is to establish a specific chapter for general earthworks while having earthworks within overlays addressed in their own chapters so as to ensure integration and clarity. This will ensure that the positive effects of earthworks are recognised and that potential adverse effects on amenity, heritage settings, cultural and natural values and identified hazards are addressed and that there is a clear policy framework in each case. The selected option addresses the issues associated with the status quo and is consistent with the Strategic Objectives that are relevant to the general earthwork's topic.

Below is a summary of the key findings of the review and the proposed new planning provisions which will manage earthworks activities within the district under the proposed District Plan:

Within the Earthworks Chapter

- An objective to recognise and provide for earthworks while ensuring that the adverse effects of earthworks are on the surrounding environment are contained.
- Policies that recognise the benefits and necessity of earthworks for subdivision, use, development, utilities, and hazard mitigation; acknowledge the effects of earthworks need to be addressed; and protect heritage settings and nationally and regionally significant infrastructure.
- Rules that:
 - permit earthworks activities subject to complying with standards that reflect the nature of the zone, the location and scale of the activity, and the need for rehabilitation and reinstatement; and
 - provide for earthworks as restricted discretionary activities where the permitted activity standards are not complied with or within heritage settings.
- Exemptions from the general earthwork's rules for small-scale earthworks and earthworks which are also managed by other legislative or regulatory frameworks.
- Definitions for 'clean fill', 'clean fill material', 'cultivation', 'dust', 'earthworks' functional need, and 'ancillary rural earthworks'.

Within Other Chapters

- Generic objectives which protected against inappropriate subdivision, use and development.
- Policy frameworks for earthworks where they are enabled if they avoid significant adverse effects on the specific environment or where they are for specific purposes such as maintenance and repair or flood mitigation works.
- Rules that:
 - permit earthworks activities subject to complying with standards that reflect the nature of the overlay and where they are not within specific areas, such as high hazard locations.
 - permit earthworks for specific activities such as the maintenance and repair of existing fences, tracks, roads, or flood protection works.
 - provide for other earthworks as restricted discretionary, discretionary, and non-complying activities depending on the location and circumstances.

Mining and Quarrying

Option 3 is the preferred option. It is considered most likely to address the key resource management issues identified above, give effect to the relevant statutory planning documents and the strategic objectives. This option provides for a consenting framework for the expansion of existing and new quarries and mines provided associated provisions are met.

The current provisions are not considered the most appropriate way in which to achieve the objective because they lack guidance on the key environmental factors to be addressed in relation to expanding or establishing a quarry or mine nor any provisions around rehabilitation or separation from sensitive activities.

The option of a Special Purpose zone was considered effective in addressing existing sites; however, it lacks a degree of flexibility and can come with a high level of initial costs and inefficiencies in terms of a District Plan framework i.e., effectively zoning for one specific activity. There were also potential inefficiencies in terms of land allocation to the zone and it take up for quarrying and mining. Further, it does not meet the criteria for such a zone under the National Planning Standards.

Below is a summary of the key findings of the review and the proposed new planning provisions which will manage mining and quarrying activities within the district under the proposed District Plan:

- Objectives recognizing the necessity of mining and quarrying and enabling those activities within the General Rural zone subject to the quality and amenity values of the (rural) environment are protected.
- Policies that provide guidance on the matters to be addressed in any application and that require progressive rehabilitation.
- Rules that:
 - Provide a permitted status specific farm quarry; and
 - Provides a restricted discretionary status pathway and rules for the expansion of existing quarries and mines in the General Rural zone; and
 - Provides a discretionary status pathway and rules for new quarries and mines in the General Rural zone.
 - Restrict mining and quarrying in other zones and overlays to non-complying activities.
- Definitions for 'quarry', 'quarrying activities', 'mining' and 'farm quarry'